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The gains in professional competencies in the area of planning of patient care by registered nurse graduates in a baccalaureate completion program.

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THE GAINS IN PROFESSIONAL COMPETENCIES IN THE AREA OF PLANNING OF PATIENT CARE BY REGISTERED NURSE GRADUATES IN A BACCALAUREATE COMPLETION PROGRAM

A Dissertation Presented

By

Mary Kathryn Alexander

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EDUCATION

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ABSTRACT

The Gains in Professional Competencies In the Area of Planning Of Patient Care by Registered Nurse Graduates In A Baccalaureate Completion Program

May, 1985

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The primary purpose of this study was to determine the extent and nature of increased planning competencies in patient care of registered nurse students from entrance to exit in a baccalaureate completion program. The study also compared the gains made with those of generic baccalaureate nursing students.

A Pre-Post test design was used to determine gains in professional nursing competencies in activities of planning for patient care. Competence was determined in reference to one filmed scenario depicting a common comprehensive patient care situation. Subjects were given the patient's record and a guide to the nursing process. They then indicated in writing their assessment, plan, implementation and evaluation of care for the designated patient. Only the plan was used as data for this study.

Results indicate gains in professional competencies in areas of planning patient care for registered nurses who pursue a baccalaureate degree in nursing. In the comparison group of generic baccalaureate nursing students, seniors nearing graduation showed a statistically significant gain over their sophomore counterparts in only one area of planning of patient care. In addition, registered nurse students had significantly higher mean scores on professional competencies upon completion than did a comparison group of graduating seniors of a traditional baccalaureate nursing program.

Findings suggest that registered nurses who have received a technical focus for basic nursing education do develop professional competencies by pursuing a baccalaureate nursing completion program.

Implications for the design of nursing education, educational mobility and the nature of the licensing examination are drawn.

Recommendations for further study and nursing education are provided.

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INTRODUCTION

Statement of the Problem

Entry level into professional nursing practice endorsed by the American Nurses Association in 1965 and the National League for Nursing in 1982 for the professional nurse is that of baccalaureate education in nursing. In the decade of the 70's and continuing into the 80's registered nurses previously graduated from diploma and associate degree nursing programs have sought bachelors degrees. A greater than one hundred percent increase in this student group has been experienced by programs offering the baccaluareate degree in nursing. This represented a change from 15,854 in 1975 to 35,662 in 1982 (NLN,1978; Vaughn, 1980; Vaughn, 1983).

At this time it is not clear what professional practice gains exist for registered nurses (R.N.'s) who have previously graduated from diploma or associate degree programs when they return to school

for their baccalaureate degree in nursing. A hint that differences will be found comes from extensive literature discussing the differences in preparation, roles and functions of graduates of diploma, associate degree and baccalaureate programs. This literature has been reviewed by Watson, (1983); Dennis and Janken, (1979); and McClosky, (1981). These authors concluded that diploma and associate degree nurses are more likely to focus in practice situations on basic skills and technical care delivery, while baccalaureate nurses are more likely to focus on activities requiring psychosocial, leadership skill and problem solving primarily related to more comprehensive care. These conclusions were based on reports of graduates' performance on simulated patient care situations, evaluations by supervisors of individual's performance and perceptions of nurse educators of various types of nursing programs.

Therefore, there is some evidence to suggest that diploma and associate degree nurses graduate from their basic programs with different skills and tendencies than baccalaureate degree nurses. It is not clear however, whether baccalaureate education

for registered nurses results in diploma and associate nursing graduates gaining new skills from entry to exit and whether these are the same skills as those acquired by traditional or generic baccalaureate nursing students.

Purpose of the Study

The primary purpose of this study was to determine the extent and nature of the gains of professional competencies in the area of planning for patient care of registered nurse students from entrance to exit in a baccalaureate nursing completion program. This study helps to show whether there is a change in the individual`s ability to plan patient care as a result of participation in a baccalaureate program for registered nurses. The study also compares the gains made by registered nurse students with those made by generic baccalaureate program nurses.

Hypotheses

The first hypothesis of this study was that there are gains in professional competencies in the area of planning of patient care by registered nurse

students from entrance to exit in a baccalaureate completion nursing program.

This author has been a nursing educator of registered nurse students for ten years. Her conclusion through evaluating students from entry to exit from a baccalaureate program is that students make many behavioral changes. In addition, students have articulated that their practice of nursing has changed because of their baccalaureate nursing experience. However, there is a dearth of literature which documents behavioral changes of registered nurses from entry to exist from a baccalaureate completion program.

The second hypothesis of this study was that the gains of professional competencies in the area of planning of patient care made by Registered Nurse students are not significantly different than gains made by generic baccalaureate nursing students. Here, also, there is a dearth of literature. The testing of the hypothesis seemed important given the debates in nursing about the ability of Associate Degree and diploma graduates to mature professionally as a result of baccalaureate nursing education.

Definition of Terms

A number of terms are used in this study which mean slightly different things to different people in the health care profession. For these reasons, definitions are provided below to increase accuracy of communication.

Generic Baccalaureate Students	Those individuals who are pursuing their basic nursing education within a four year bachelor of of science program.
Guide to the Nursing Process	An outline of the major components and subcomponents of the nursing process.
Planning of Patient Care	The determination of a plan of action to assist the client toward the goal of optimal wellness based on the highest level of fulfillment of human needs and to resolve the nursing diagnosis(es). (Yura, 1983)
Professional Nursing	Practice by a registered nurse whose minimum degree was a bachelor of science in nursing (Johnston, 1982). Professional nursing is characterized by utilizing a broad knowledge base to solve complex health care problems.
Registered Nurse Baccalaureate Completion Program	Those baccalaureate nursing programs which admit only students who are registered nurses.

Simulated Clinical Practice Examination	A simulated patient care situation in which the student applies components of the nursing process in order to assess the patient, plan for, implement and evaluate patient care.
Technical Nursing	Practice by a registered nurse who is a graduate of an associate degree in nursing or diploma program. Technical nursing is characterized by the carrying out of routine measures as well as medically delegated techniques with a high degree of skill in structured acute care settings. (Johnston, 1982)
The Professional Nurse	Utilizes the nursing process as a framework to identify and solve common and uncommon immediate and long-term health care problems of a bio-psychosocial nature; functions in an educative and psychological supportive role in the areas of disease prevention and health maintenance; initiates non-prescribed nursing actions and functions collaboratively with other professionals in providing health care to individuals, families and groups in a variety of settings. (Searight, 1976; Johnson, 1968; Schlotfeldt, 1977; Gray, 1977)
The Technical Nurse	Attends to immediate health needs of individuals utilizing established interventions to solve common health problems.

Significance of the Study

Increasing numbers of registered nurses who have previously graduated from associate degree and diploma programs are returning to college for the baccalaureate degree in nursing. In the fall of 1982, over 35,000 registered nurses were enrolled in baccalaureate nursing education programs. This represents a greater than 100 percent increase enrollment of this population for the period 1975 - 1982 (Vaughn, 1983). During 1981-82, 9,344 registered nurses graduated from baccalaureate programs. Of these, 3,423 were graduated from registered nurse baccalaureate completion programs. This represents a fifty percent increase in registered nurse student graduations in a five year period, (Vaughn, 1983). The literature has described the behavioral changes in role and function in practice situations of diploma, associate degree and baccalaureate levels of educational preparation in nursing. (DeChow, 1970; Yura, 1974; Waters, 1972). However, there are not studies reported in the literature that describe the behavioral changes in role and function of

registered nurses who have previously graduated from diploma and associate degree programs and have subsequently graduated from a baccalaureate nursing program. There is need to determine if a change in professional behavior occurs for these registered nurses and whether their professional behaviors are comparable to those of individuals who have graduated from a generic baccalaureate program. This research will be useful in further developing nursing curricula for both types of programs and in allocating the diminishing resources within educational and practice settings more effectively.

Limitations of the Study

This study was designed to investigate the extent and nature of the gain in professional competencies in the area of planning of patient care of students from entrance to exit in two types of baccalaureate nursing programs. There was no attempt to evaluate the actual implementation or evaluation of nursing care. One simulated common patient care situation was utilized. A retrospective audit methodology to review

information written in the plan was utilized. (Griffith, J. and Christensen, 1982). This limitation results in the documentation and analysis of stated behavior to be performed in a single case rather than the actual performed behavior.

Along with a group of registered nurse students in a baccalaureate completion program, a comparison group of generic baccalaureate nursing students was used in the study. Sophomore students were identified as the entry group and seniors were dgsignated as the exit group. The fact that the entry and exit generic baccalaureate groups were composed of different students, rather than the same students as in the completion program, makes the generic pre-post and the cross-program comparisons tentative. Caution must therefore be exercised in making conclusions based on the comparison group data. Also, the fact that the generic students have had less nursing practice experience than the registered nurse students could be a limitation.

C H A P T E R II

REVIEW OF THE LITERATURE

Overview

The literature is rich with descriptive studies on characteristics of nursing performance relating to the three types of nursing education: diploma, associate degree and baccalaureate degree (Bailey, 1966; Johnson, 1966; Schlotfeld, 1977; Beverly and Junker, 1977). Studies are also reported that have investigated differences in cognitive skills and attitudes toward practice among graduates from the three types of educational programs. (Verhonick et al, 1968; Davis, 1972, 1974; Chamings and Treevin, 1977; Watson, 1981; Gray and al, 1977; Scolverno, 1981; Waters et al, 1972; Haussman, Hegyvary and Newman, 1976). However, research is sparse in the area of determining competencies of registered nurse students or registered nurse graduates or more particularly of professional skill gain by registered nurses who return to school and complete a baccalaureate nursing program.

The review of the literature for this study focuses on cognitive performance as opposed to actual clinical performance in the area of competency relating to nursing practice. This focus was chosen to provide an overview of what the author thought to be differences in program outcomes between baccalaureate, associate, and diploma programs. Studies will be reported that have looked at rating by others as a method of identifying cognitive differences. Research on the use of simulation and indirect testing to determine cognitive nursing competency is also examined.

Ratings by Others

One method used to compare competencies of program graduates was to utilize others' perceptions of the graduates rather than actual behavioral differences between graduates. Chamings and Treevan (1979) asked nursing educators in technical and professional nursing programs to rate their graduates on expected competencies on an 80-item questionnaire. They asked: "Do baccalaureate and associate degree educators believe their programs prepare nurses with the same or different

competencies?" From this general question they asked two specific questions: 1. Are there differences in the overall level of expectation by baccalaureate versus associate degree educators? 2. Are there differences in the kinds of competencies expected and if so, what are these differences? These investigators were interested in three areas of competency: conceptual, human and functional. Conceptual competencies were those activities requiring the ability to reason, to know and use theoretical content, and to recognize, analyze, synthesize and evaluate situations in order to plan and implement creative patient care. Human competencies were intellectual competencies merged with technical behaviors in a humanistic fashion and comprised interpersonal and intrapersonal interactions. Functional competencies were primarily psychomotor or technical skills. Analysis of the data showed that the expectation for baccalaureate graduates by faculty of both technical and professional programs were higher on the conceptual and human scales and not significantly different on the functional scales. The evaluation of the graduates' actual performance was not

reported. Therefore, these results may tell more about faculty perceptions than actual student performance.

Simulations

The most frequently cited simulation study in the literature was that of Verhonick et al (1968). These investigators used five filmed realistic patient care situations to compare the observational perceptions and recommended actions of 1,576 registered nurses. The sample ranged in educational preparation from vocational preparation with no degree to nurses with a doctoral degree. The recommended actions were categorized as either supportive (those voluntary nurse actions requiring skill, knowledge, and judgment and not requiring direction from a physician), therapeutic (those prescribed or dependent upon orders from physicians), or neither supportive nor therapeutic. The researchers found that academic preparation was inversely related to therapeutic actions and positively related to supportive actions. The relationships of actions to educational preparation was analyzed through tabulations of frequences and

percentages. The nurses with higher academic degrees were more likely to identify actions they could perform independently rather than actions that needed a doctor's order. These findings suggest that differently educated nurses focus on different nursing problems and that higher education yields more independent nursing actions (Watson, 1983).

Davis (1974) used the same filmed sequences and compared responses of diploma nurses with those of baccalaureate degree nurses. The written material was assessed for number of relevant observations, number of nursing interventions and appropriate reasons for the interventions. Their conclusions paralleled those of Verhonick; the quality and quantity of supportive care provided by baccalaureate nurses was superior to that of diploma nurses.

Tests

Paper and pencil testing has also been utilized to identify differences in cognitive skills among graduates of the three types of programs. Researchers at the University of Vermont conducted a study using open-ended short essay questions to

determine if graduates of the technical and professional programs performed differently in specific nursing care situations (Gray et al, 1977). According to those authors, the technical practitioners showed concern for meeting patients' immediate health needs, and they anticipated ways to avoid or handle expected immediate or later problems related to the primary one. Although the professional practitioners also had these concerns, they indicated, in addition, plans for initiation of non-prescribed nursing actions such as health promotion and prevention of health problems. They also asked questions to ascertain from the patient possible causes for the presenting problems and they anticipated long-term needs of the patient and/or family. These needs were not necessarily directly related to the presenting problem and they reflected the nurses' breadth of knowledge. The professional group's reponses moreover reflected leadership concerns such as teaching staff and initiating patient educational programs. The technical group's reponses indicated that they had management concerns such as providing equipment and supplies, and updating nursing care plans.

Direct Observation

Haussman, Hegyvary and Newman (1976) examined the relationship between the type of nursing education and the quality of nursing performance by directly observing nurses in patient care settings. Their sample included eight diploma nurses, five associate degree nurses, and 16 baccalaureate degree nurses. They reported that diploma nurses scored higher than baccalaureate or associate degree nurses in their formulation of nursing plans. Baccalaureate graduates scored higher than did diploma or associate degree nurses in their attention to non-physical needs and evaluation of nursing care achievements. This finding parallels those cited earlier and suggests that baccalaureate graduates provide more comprehensive care as they attended to psychosocial needs of their patients.

Conclusion

The overall opinion of researchers represented in the studies and literature continue to support the idea that a difference exists in the quality and/or nature of practice among diploma, associate degree and baccalaureate degree prepared nurses

(Dennis and Janken, 1979). The differences seem to exist in the breadth of practice between diploma, associate degree, and baccalaureate prepared nurses in that baccalaureate nurses provide more comprehensive nursing care than do technically prepared nurses.

In many of the studies reported the samples were small and further testing is needed to validate the findings. This investigator did not find studies in the literature that addressed professional nursing competencies of registered nurse graduates of baccalaureate completion programs. Since the profession of nursing has established that baccalaureate education is the minimum preparation necessary for professional practice there is a marked increase in the number of registered nurses returning to educational institutions to pursue a bachelor degree in nursing. It is essential that data be collected and analyzed to determine the effectiveness of a completion program in the development of professional competencies.

In this study the investigator used the simulation methodology in order to collect data.

The subject's cognitive nursing competency was assessed using a rated check-list format. This approach is similar to that used by Verhonick, 1968; Davis, 1974.

CHAPTER III

METHODOLOGY

Purpose

The purpose of this study was to determine the extent and nature of the gains of professional competencies in the area of planning for patient care of registered nurse students from entrance to exit of a baccalaureate nursing completion program. Furthermore, it was designed to compare gains in a registered nurse baccalaureate completion program with gains of students in a generic baccalaureate nursing program.

Design of the Study

To test Hypothesis One that there are gains in professional competencies in the area of planning for patient care by registered nurse students as a result of baccalaureate nursing education, professional behaviors were identified and a pre-post test design was used. To test Hypothesis Two that the gains of professional competencies in the

area of planning of patient care by registered nurse students are not significantly different than gains made by generic baccalaureate nursing students as a result of baccalaureate nursing education, a comparison of the posttest scores of the two groups was made.

The independent variable in this study was type of program. For the focus group, registered nurse students in a completion program, the independent variable was a registered nurse baccalaureate completion program. For the comparison group, the independent variable was the traditional generic nursing program at a four-year state college. For both groups, the dependent variables were the stated professional competencies of planning for patient care as measured by scores on the clinical practice exam. These are discussed in the section on scoring. One filmed scenario depicting a common comprehensive patient care situation was shown. The subjects were given the patient's record (Appendix A) and a guide to the nursing process (Appendix B). They were then asked to respond in the response booklet (Appendix C) provided and indicate their assessment, plan, implementation and evaluation of

care for the designated patient. Only the plan was used in the analysis of the data for this study. The decision to use a filmed patient care situation as a data generating vehicle was based on the work of Verhonick and Lenburg. The use of a filmed sequence, patient record and the guide to the nursing process, provided the opportunity to present a simulated patient care situation, namely a common set of stimuli from which respondents take a nursing action (Verhonick et al, 1968). A simulated examination that tests the students' competence in an area such as clinical-decision-making ensures control over multiple complex variables and the multiplicity of situations, major health problems, and client settings involved (Lenburg, 1979). That is, the patient care situation was fixed, the patient's condition cannot vary and the conditions under which care was provided remained unchanged.

Subjects

The researcher used two samples. The experimental group consisted of 36 students in one registered nurse baccalaureate completion program within the Massachusetts State College System. Their

age range was from 23 - 52 with a mean age of 31.19. (Table 1, page 24) Seven (7) individuals had previously graduated from Associate Degree programs and twenty-nine (29) from Diploma - Hospital School of Nursing Programs (Table 2, page 24). Their previous experience as registered nurses employed full-time ranged from zero (o) to two-hundred-forty (240) months with a mean of 48.38 months (Table 3, page 25). These subjects took the Clinical Practice Examination as a Pre-entrance requirement for the nursing major, and took the exam again during the last semester of their program.

The comparison group consisted of a random sample of generic baccalaureate nursing students from another four year college within the Massachusetts State College system. Fifty students from the Class of 1986 composed pretest on entry level group, and 37 students from the Class of 1984 formed the posttest or exit level group. (Table 1, page 24). The factor of time resulted in selecting the two groups rather than following the Class of 1986 from the beginning of their program through graduation. These like groups are similar in that

this is their first nursing education experience. They have had no previous formal nursing education or clinical experience.

All subjects took the examination during a scheduled class period. Students were given the option not to participate. They were informed that their decision whether or not to participate would have no effect upon their grades for courses taken. They were told that the response booklets would be coded using the following method: Each booklet would be given a random number from 1-200. The numbers would be allocated in a manner so that the coders would not be able to determine whether they were coding Pre or Post, traditional or completion program student data. For example, one pretest booklet would be numbered 12 and another 147 and a Post-test booklet 10 or 108. There would be a master list kept by the investigator with the names and corresponding numbers. Thus, the pretest and posttest examinations would be scored blindly and the subjects' anonymity would be assured. The students were informed that upon request they would be sent of a summary of the study results.

TABLE 1

CHARACTERISTICS OF SUBJECTS: AGE

	Registered Nurse Students	Generic Students Entry Group	Generic Students Exit Group
Number	36	50	37
Mean Age	31.19	19.46	23.48
Age Range	23-52	18-20	21-28

TABLE 2

CHARACTERISTICS OF SUBJECTS:

PREVIOUS EDUCATION

	Registered Nurse Students
Number	36
Associate Degree	7
Diploma	29

Associate Degree - Associate Degree Nursing
Diploma - Hospital School Graduate

TABLE 3

CHARACTERISTICS OF SUBJECTS:

PREVIOUS NURSING EXPERIENCE

	Registered Nurse Students
Number	36
Mean Number of Months Employed Full-time Since Graduation	48.38
Range	0-240

Instrumentation

Overview

The assessment instrument used was a simulated clinical practice examination. The video tape simulation of a common patient care situation was developed by the author and another member of the faculty in the registered nurse baccalaureate completion program. The tool was designed to evaluate the student's abilities to conceptualize the care of a patient; that is, the ability to assess the nursing needs of the patient and based on

the assessment, plan for the care needed. A final component was designated for the student to evaluate the patient's response within in a given time period (four days) to the treatment provided. For the purpose of this study only one component of the examination was used for data collection and analysis: planning for patient care based on assessment. This component was selected because planned nursing care is the basis for nursing practice. Planning for patient care is a systematic and complex process. Adequate planning involves not only knowledge of human beings and their adaptive behaviors but also a means of applying that knowledge to the promotion and maintenance of maximum health regardless of the environmental circumstances (Bower, 1972).

Development

The video tape simulation was based on a realistic patient care situation. From this patient care situation a script was written by a member of the faculty of the registered nurse completion program. It was designed to ensure that only relevant action and dialogue were included. A media

played the role of the patient. The two minute major student video tape of the patient situation was made in conjunction with the support staff of the media department and the two faculty members, one of whom was the researcher. A patient record was developed previously by this researcher to complement the video taped patient care situation.

Reliability and Validity

The Clinical Practice Examination has been administered as a pre-entrance requirement to the nursing major since 1979. Approximately 200 individuals have taken the examination. The majority have achieved a grade of 75 percent or higher, with a high degree of consistency in responses given. This consistency in responses is a positive characteristic suggesting the reliability of the instrument. However, there has been approximately a 25 percent failure rate on the examination which suggests that the examination does discriminate.

Face validity for the examination has been determined. The examination was reviewed by a curriculum consultant of the National League for

Nursing. At least ten (10) doctorally and fifty-five (55) master prepared nursing educators from various parts of the country have reviewed the examination. These individuals attended a nationally publicized workshop on the clinical performance exam. Approximately eighty (80) percent of the educators actually took the examination and subsequently participated in a formal evaluation of the instrument. They were asked, "Does the simulated performance examination test one's ability to utilize the nursing process?" They indicated that it appears to be a good measure of an individual's ability to assess, plan for and evaluate patient care. Subsequent to their review eighteen of the above educators from ten states have purchased the examination for use in their nursing programs.

Content validity has been determined. The examination was administered to one doctorally prepared and three masters prepared nursing faculty. These individuals are considered to be experts in the area of nursing care. Their areas of clinical concentration were medical surgical nursing (2),

psychiatric nursing (1), community health nursing (1). These experts took the examination and then analyzed the examination and deemed that content of nursing assessment, planning for, implementation and evaluation of patient care was adequately represented.

Scoring

For the purpose of this study all of the raw data collected on the pretest and posttest from both the experimental and comparison groups were scored using a check list. Fifty-four items developed to measure the student's ability to formulate a plan of nursing care were applied to these data (Appendix E). In addition to the 54 items, an "other" category was noted but not scored for this study. The "other" category provided the opportunity for the coders to list those responses made by individuals that did not fall into the 54 designated categories. These responses will be considered for future development of the instrument.

At the onset of the study, each item was given a designation of either technical or professional.

Thirty of the above-mentioned items were designated as professional (professional behaviors) and twenty-four items were designated as technical (technical behaviors). In this study the professional items were the major focus of the analyses. In other words, those items which indicated initiation of nonprescribed nursing actions, assessment and teaching relating to causes of presenting problems and anticipated long-term needs were analyzed and of primary interest. The sums of the technical items were also analyzed, but were of lesser importance in regard to the study's hypotheses. The technical items were those items which indicated the carrying out of routine measures as well as medically delegated techniques.

The designations of professional or technical were determined by majority agreement of the raters who are considered to be experts in the area of technical and professional nursing. The raters were: Dr. Mildred Montag, Professor Emeritus at Adelphi Univerity and recognized for her development of associate degree nursing education; Dr. Carrie B. Lenburg, Coordinator of the Nursing Program (associate and baccalaureate), University of the

State of New York Regents External Degree; Dr. Janet Sawyer and Ms. Judy Gray, authors of "Do Graduates of Technical and Professional Nursing Programs Differ in Practice?", Nursing Research, 1977, and Dr. Ruth A. Smith, Director, Division of Nursing, University of Massachusetts, Amherst, Massachusetts.

Two individuals prepared at the masters level in nursing were paid by the investigator to score the responses. If the information meeting the item was clearly present in the raw data in the Response Booklet, the rater indicated that by placing the number 3 next to the item. If the data in the response booklet relating to an item was vague, the rater placed the number 2 next to the item indicating that it could not clearly be determined that the criteria had been met. If the data were clearly not present, number 1 was placed next to the item.

Procedure

The subjects in the experimental group took the Clinical Practice Examination as a pre-entrance requirement for the nursing major. These subjects

also took the Clinical Practice Examination during their last semester in their nursing program, in the fall of 1983.

The subjects in the comparison group were two sub-groups of students, one in the sophomore and one in the senior class of the nursing major at a four year state college in Massachusetts. All of the students were generic baccalaureate nursing students. The Class of '86 (pretest) took the exam during the first semester of their sophomore year, that is prior to experiencing the nursing major curriculum content. A like group, the Class of 1984 (Post-test) took the exam during the last semester of their nursing program. The pretest and posttest data from this program were not provided by the same people as was the case in the experimental group. This does raise some questions of comparability. However, the classes of 1984 and 1986 were similar demographically. This comparison is still not the most desirable for control purposes but it provides the opportunity to make an initial, tentative assessment of gains in the two programs (without waiting the two years to get post-data on the 1986 group).

The examinations were administered during class periods for all groups. All of the students were encouraged by faculty to take the exam. Those students who wished not to participate in the study were told to so indicate that and their booklet would not be included in the study. When the members of the Class of 1984 in the generic baccalaureate nursing program realized that it was not mandatory that they participate, only 37 members remained to take the exam.

All examinations were given using the following procedure. The subjects were assembled and oriented to the examination procedure. Each student was given the following materials: a. guide to the nursing process; b. a copy of the patient record, and c. a Response Booklet in which the subject wrote responses. The subjects then viewed the video taped nurse patient situation. A voice-over (Appendix D) presented information regarding the patient's status. The video tape presentation depicted a patient care situation as it would be viewed in reality by a nurse. Utilizing the guide to the nursing process, the subjects responded to

the patient care situation (in the reponse booklet provided) as if they were actually caring for the patient on day one after admission by identifying assessment data, plan for nursing care and implementation of care. In the final step, the subjects viewed the second portion of the video tape presentation which depicts the same patient three days later. The subjects were told to imagine that they had just had two days off and then returned to care for the patient. After viewing the video tape, they read the patient's record for the information recorded for the preceding two days and then described in the Response Booklet the patient's progress in relation to nursing care and therapy provided. The time period for the administration of the examination was one hour and fifteen minutes.

Data Analysis

The first hypothesis that there are gains in professional competencies in the area of planning of patient care by registered nurse students from entrance to exit in a baccalaureate completion nursing program, was tested using paired t-tests.

Both gain between pretest and posttest mean whole professional planning category scores, that is, all professional planning items combined, and each professional item were analyzed using a paired t-test.

In addition, the variables of age, previous nursing education and number of months of full-time employment (Appendix F) as a registered nurse were included in the analysis. Group t-tests were used to compare performance for professional behaviors on pretest and posttest with previous basic nursing education, diploma or Associate Degree. Pearson's Correlation Coefficients were calculated to determine if a significant correlation existed between pre and post test performance and age and months of employment since graduation.

The second hypothesis of this study was that the gains of professional competencies in the area of planning of patient care made by registered nurse students are not significantly different than gains made by generic baccalaureate nursing students was tested using group t-tests. Group t-tests were used to analyze the pretest (entry) and posttest (exit) mean whole professional planning category

scores, as well as performance for each professional behavior for the generic baccalaureate subjects. Group t-tests were also used to compare scores on pretest and posttests for the subjects from the completion baccalaureate program with those from the generic baccalaureate program.

A stepwise discriminate analysis was done to determine which professional behaviors were the best discriminators between subjects of the two types of baccalaureate programs.

C H A P T E R IV

RESULTS

Overview

This chapter presents the data analysis for both the experimental and comparison components of the study. An explanation of the relationship of the data analysis to each hypothesis is reported.

In the first section, both whole category and individual item gains for registered nurse students and generic baccalaureate students are presented for the responses in the simulated patient care situation. The second section provides a comparison of gains made by the registered nurse students and by the generic baccalaureate students.

Analysis of the Responses to the Simulated Patient Care Situation

Tests were completed prior to entry and upon exit from the program by thirty-six (36) R.N. students in the registered nurse baccalaureate completion program. Fifty (50) first semester

sophomores and thirty-seven (37) second semester seniors in a generic baccalaureate program also completed the examination. As indicated in Chapter III, all of the raw data collected from both the experimental and comparison groups were scored using a checklist which delineated professional and technical competencies. These checklists were coded and verified by two independent raters. These data were analyzed using programs in the Statistical Package For the Social Sciences (SPSS).

The Paired t-test was used to determine the gains of professional behaviors of the registered nurse student sample thus testing the first hypothesis. Group t-tests were used to compare the generic baccalaureate samples and also to compare the registered nurse students with the generic baccalaureate students, therefore testing the second hypothesis. Pearson's Correlation Coefficients were computed to determine if age and number of months of employment were related to the mean sum of the responses for the professional behaviors on the exit test for the registered nurse students. Stepwise Discriminate Analysis was used to show which

professional behaviors best discriminated the exit scores of the registered nurse students from the scores of the seniors in the generic baccalaureate program.

Two hypothesis were tested relating to the gain in professional competencies in the area of Planning of Patient care.

Data related to the first hypothesis will be presented first for all professional items combined. This is followed by individual professional item analysis.

First Hypothesis

Hypothesis 1: There are gains in professional competencies in the area of planning of patient care by registered nurse students from entrance to exit in a baccalaureate complgtion nursing program.

Whole Professional Planning Category Comparison at Entry and Exit for Registered Nurse Students

Table 4 summarizes the t-test analysis of entry vs exit scores on the Professional Planning Behaviors of the registered nurse student in a baccalaureate completion program.

TABLE 4

WHOLE PROFESSIONAL PLANNING CATEGORY COMPARISONS AT ENTRY AND EXIT FOR REGISTERED NURSE STUDENTS

Mean Score		df	t-value	p
Entry (N=36)	Exit N=36)			
36.722	44.333	54.50	-4.78	0.000

As can be seen in Table 4, there was a significant difference between the group mean score from entry to exit.

The results of the Paired t-test support the first hypothesis of the study. There were significant gains in professional behaviors in the area of Planning of Patient care by registered nurse students from entry to exit in a baccalaureate completion nursing program. This hypothesis is further tested in an item analysis presented in Table 5.

Individual Professional Item Comparison: Entry and Exit For Registered Nurse Students

Table 5 shows only statistically significant entry and exit mean score differences in individual professional behavior for registered nurse students. The table with all of the individual professional item mean score differences can be found in Appendix G, Professional Planning Item Comparison: Entry to Exit for Registered Nurse Students

TABLE 5

SIGNIFICANT PROFESSIONAL PLANNING ITEM COMPARISON: ENTRY TO EXIT FOR REGISTERED NURSE STUDENTS

Professional Behaviors	Mean Scores		df	t-value	p
	Entry (N=36)	Exit (N=36)			
31. Note client`s response to hospitalization	1.222	1.666	35.00	-2.26	0.03
32. Note what client currently does to decrease anxiety	1.027	1.472	35.00	-3.30	0.00

TABLE 5 - Continued

Professional Behaviors	Mean Scores		df	t-value	p
	Entry (N=36)	Exit (N=36)			
34. Assist client in becoming aware of relationship of stress and illness	1.222	1.638	35.00	-2.32	0.02
41. Teach relaxation methods and encourage their use as soon as client notices increased anxiety	1.111	1.583	35.00	-2.92	0.00
42. Encourage clienv to prepare for exams by strengthening study habits	1.083	1.500	35.00	-2.76	0.00
43. Encourage client to discuss current health problem with the Professor to make him/her aware of health problem	1.000	1.305	35.00	-2.74	0.01
44. Assess client's knowledge of relationship of diet and health	1.2778	1.833	35.00	-3.95	0.00
45. Review current nutritional patterns	1.333	2.166	35.00	-5.31	0.00

TABLE 5 - Continued

Professional Behaviors	Mean Scores Entry (N=36)	Exit (N=36)	df	t-value	p
52. Assess client's knowledge of relationship of adequate sleep to health	1.055	1.333	35.00	-2.53	0.01
58. Discuss possible corrections for poor health habits	1.250	1.722	35.00	-2.62	0.01

As can be seen in Table 5, there was a significant gain in the mean score for ten of the thirty Professional Behaviors (Appendix G). Six of the Professional Behaviors focused on determining the client's level of knowledge and on teaching. They were: "Assist client in becoming aware of relationship of stress and illness" (34); "Teach relaxation methods and encourage their use as soon as client notices increased anxiety" (41); Assess

client's knowledge of relationship of diet and health" (44); "Review current nutritional patterns" (45); "Assess client's knowledge of relationship of adequate sleep to health" (52); "Discuss possible connections for poor health habits" (58). The remaining four Professional Behaviors that had significant gains in mean from entry to exit focused on the psychosocial aspects of planning the client's care. These were: "Note client's response to hospitalization" (31); "Note what the client currently does to decrease anxiety" (32); "Encourage client to prepare for exams by strenghthening study habits" (42); "Encourage client to discuss current health problem with the professor to make him aware of health problem" (43). The data in Table 5 demonstrate that those registered nurse students who returned to formal education in order to seek a professional degree, did gain significantly in planning of patient care from entry to exit in selected Professional Behaviors. This adds further support for the first hypothesis of the study.

In reviewing these results, it should be noted again that these subjects were registered nurses prior to entry into the program and thus did not have to focus on the technical content needed to be successful on State Board Examinations on competent technical practice.

Further Analysis

As shown in Tables 4 and 5 there was a significant gain by registered nurse students in some professional behaviors in the area of planning of patient care from entry to completion. This gain was found when all the professional items were combined and for 10 of the items when separate analysis were done. What factors could have affected this change in behavior besides quality and focus of education within the completion program? In the following Tables 6, 7, 8, the relationship of age, previous basic nursing education and months of employment to mean scores for professional behaviors on entry and completion are examined.

Age and Employment

Pearson's Correlation Coefficients were computed

to determine for registered nurse completion program students, the relationship between the sum of the Professional Behaviors scores on the entry test and age and number of months of full-time employment as a registered nurse. The correlation with age was not significant ($r = -0.132$, $p = .225$). The correlation with full-time employment as a registered nurse prior to entering the nursing program was also not significant ($r = -0.1968$, $p = 0.125$). A Pearson was also run to determine if there was a correlation of age and number of months of employment with the sum of the exit test means of the Professional Behaviors. Neither of these values was significant ($r = 0.1581$, $p = .179$) for age and ($r = -0.1458$, $p = 0.198$) for number of months of previous full-time employment as a registered nurse. Thus age and number of months of previous employment did not relate significantly to either entry or exit scores.

Basic Education

The group t-test was used to determine if previous basic nursing education, diploma or associate degree, was related to the score on the entry and exit profession item test scores.

Table 6 illustrates whole professional planning category scores on the entry test related to previous basic nursing education.

TABLE 6

WHOLE PROFESSIONAL PLANNING CATEGORY COMPARISON ENTRY FOR REGISTERED NURSE STUDENTS BY PREVIOUS BASIC NURSING EDUCATION

	Mean Scores	df	t-value	p
Diploma (N=29)	35.791			
		33	-2.70	0.01
Associate Degree (N=7)	41.000			

The entry mean scores for those previously graduating from an associate degree nursing program were significantly higher than entry scores from those graduates of a diploma nursing program. This finding is somewhat surprising as both programs have as their purpose to prepare a technical nurse as defined in this study. This difference could have resulted from the level of academic preparation of the faculty in the two programs. The fact that 59%

of the faculty in associate degree programs as compared to 26% in diploma programs (McCloskey and Grace, 1981), hold Master's or Doctoral Degrees could be a contributing factor. Many of these faculty received their basic nursing preparation in baccalaureate programs and as a result perhaps are teaching as they were taught rather than teaching material classically considered appropriate to associate degree programs. Most nursing educators in diploma programs received their basic nursing education in diploma programs and thus follow this model in their teaching even though they have additional academic preparation.

All of the students entering the completion program are required to meet prerequisite requirements which include twelve credits in social sciences, and nineteen credits in natural sciences. The majority of the students entering the major have additional credits in the humanities. It is apparent that the general education foundation for all of the students entering the completion program is similar and therefore does not explain the difference in entry scores for the associate degreee and diploma groups.

Table 7 shows the results of the group t-test on whole professional planning comparison at exit for registered nurse students with the two previous basic nursing education backgrounds.

TABLE 7

WHOLE PROFESSIONAL PLANNING CATEGORY
EXIT LEVEL FOR REGISTERED NURSE STUDENTS
BY PREVIOUS BASIC NURSING EDUCATION

	Mean Scores	df	t-value	p
Diploma (N=29)	43.793			
		33	-1.22	0.23
Associate Degree (N=7)	48.333			

It is interesting to note that the means between the two groups on exit are not significantly different. Both groups increased their mean score from the entry test; however, the previous diploma graduates did so to a greater degree and ended their program with not significantly different professional behavior scores than the associate degree registered nurses.

Table 8 depicts whole professional planning category comparison entry and exit for diploma graduates.

TABLE 8

WHOLE PROFESSIONAL PLANNING CATEGORY

ENTRY AND EXIT

DIPLOMA GRADUATES

Mean Score (N=29)		df	t-value	p
Entry	Exit			
35.793	43.793	28	-4.36	0.00

Consistent with a comparison of Tables 6 and 7 and as can be seen from this table, those individuals who had previously graduated from diploma programs showed a significant gain in professional planning behavior from entry to exit. Table 9 shows, as also would be expected from Tables 6 and 7, that the gain in professional planning behaviors for associate degree graduates was not significant. Apparently the associate degree

graduates had numerous professional nursing behaviors at entry and only added to these slightly. However, one must be cautious in interpreting the data on Tables 6, 7, and 9 relating to the associate degree graduates as the sample of seven is small.

TABLE 9

WHOLE PROFESSIONAL PLANNING CATEGORY

ENTRY AND EXIT

ASSOCIATE DEGREE GRADUATES

Mean Scores (n=7)		df	t-value	p
Entry	Exit			
41.000	48.333	5	-1.63	0.16

In reviewing the data on Tables 6, 7, 8, and 9, it appears that the individuals who received their basic education in diploma schools benefited the most from the baccalaureate completion program. That is, they entered the baccalaureate completion program with very limited professional planning

behaviors in patient care. As a result of the program, they showed significant gains in their professional planning behavior. It is equally as important to note that associate degree graduates showed no significant gain. From this study, it appears that associate degree level registered nurses do have professional behaviors at entry at least as these behaviors are defined in this study.

Summary

The data presented in this section support Hypothesis One. Registered nurse students did show significant whole category gains in professional planning behaviors from entry to exit of the baccalaureate completion program. This group also showed significant gains on ten of the thirty professional items. Age or previous duration of employment as a registered nurse were not significant factors relating to exit mean scores for professional behaviors. Previous basic nursing education did affect performance on professional behaviors. Those individuals who graduated from associate degree programs had significantly higher entry mean scores than did their counterparts who

graduated from diploma programs. The diploma graduates showed significant gains from entry to exit on professional items. At the time of exit from the completion program there was no significant difference between associate degree and diploma on performance on professional items.

Second Hypothesis

Hypothesis 2: The gains of professional competencies in the area of planning of patient care made by registered nurse students are not significantly different than gains made by generic baccalaureate nursing students.

The whole category and individual professional item gains for registered nurse students were presented under Hypothesis One. Data related to the Second Hypothesis will be presented first for all items combined. This is followed by individual item analysis.

Whole Professional Planning Category Comparison at Entry and Exit for Generic Students

Table 10 shows whole professional planning category comparison at entry and exit for the generic nursing students.

TABLE 10

WHOLE PROFESSIONAL PLANNING CATEGORY COMPARISON AT ENTRY AND EXIT FOR GENERIC STUDENTS

Mean Score		df	t-value
Entry (N=50)	Exit (N=37)		
36.204	37.108	81.08	-0.84

There was no significant difference on the mean scores of the two testings. This suggests that students did not show a significant gain in professional planning behaviors as a result of participation in the generic nursing education program.

In examining these results one should recall that the entry sample and the exit sample were two distinct samples. However, the group which provided entry data was similar demographicaly to those that provided exit data. Therefore, it seemed that a comparison could be made with caution. However, it is possible that the samples differed in some significant way not tapped by this study.

Professional Item Comparison: Entry and Exit For Generic Students

Table 11 illustrates the statistically significant entry and exit mean test scores for each of the professional planning behaviors for the generic nursing students. The table with all of the mean score differences for each professional item can be found in Appendix H, Professional Planning Item Comparison: Entry to Exit for Generic Students.

TABLE 11

SIGNIFICANT PROFESSIONAL PLANNING ITEM COMPARISON: ENTRY TO EXIT FOR GENERIC STUDENTS

Professional Behaviors	Mean Scores Entry (N=50)	Exit N=37)	df	t-value	p
37. Encourage coping mechanisms such as talking	1.632	2.432	77.26	-4.25	0.00
42. Encourage client to prepare for exams by strengthening study habits	1.306	1.054	78.31	2.53	0.01

TABLE 11 - Continued

Professional Behaviors Mean Scores			df	t-value	p
	Entry (N=50)	Exit N=37)			
52. Assess client's knowledge of relationship of adequate sleep to health	1.224	1.054	73.43	2.22	0.03

As can be seen in Table 11, there were significant differences in the pretest and posttest mean scores for only three of the thirty professional behaviors. A very interesting point is that of the three, two professional behaviors: "Encourage client to prepare for exams by strenghthening study habits" (42) and "Assess client`s knowledge of relationship of adequate sleep and health" (52) had higher mean scores on the entry test than on the exit test. This might be explained by the fact that the sample who took the entry test was a different but comparable sample to those who took the exit test. It would be expected however, that the seniors would perform at least at the level

of those entering the nursing major. The other significant professional behavior on Table 11 was "Encourage coping mechanisms such as talking" (37), which has a psychosocial focus in the planning of patient care. The fact that there was a significant increase in the mean score on only one professional behavior could be related to the fact as was discussed earlier, that during the last semester of the generic program for this particular school, there is much emphasis on preparing for State Board Examinations. The current State Board Examinations are given to graduates of all levels of basic nursing education: associate degree, diploma, and baccalaureate. The exams have a technical nursing focus thus perhaps the subject focus of these generic baccalaureate students could be at least temporarily diverted toward more technical care.

After examining the data on Tables 5 and 11, it should be noted that the data do not support the second hypothesis, which is that the gains of professional competencies in the areas of planning of patient care made by returning baccalaureate students, will not be significantly different than

gains made by generic baccalaureate nursing students. Table 11 shows that the generic nursing student seniors as compared to sophomores had a significant gain in the mean score of only one Professional Behavior, "Encourage coping mechanism such as talking" (37). In fact, for two of the Professional Behaviors, "Encourage client to prepare for exams by strengthening study habits" (42), and "Assess client's knowledge of relationship of adequate sleep to health" (52); the sophomores scored at a significantly higher level than did the seniors. Table 5 shows that the registered nurse students had significant gains in ten of the thirty professional behaviors. Thus, the registered nurse students did indeed have significantly different pattern and quality of gains than those made by generic baccalaureate nursing students.

In order to get more refined understanding of the differences in gains in professional behaviors in the area of planning between the registered nurse students and the generic baccalaureate students, entry and exit comparisons were made. Category and individual item analysis were run comparing

registered nurse with generic students. Tables 12, 13, 14, and 15 present direct statistical comparison of registered nurse and generic groups at entry and at exit.

Whole Professional Planning Category Comparison: Entry Registered Nurse and Generic Students

Table 12 shows whole professional planning category comparison for entry level registered nurses in a completion program and sophomore generic nursing students. As can be seen there is no significant difference in the mean scores of the two groups.

TABLE 12

WHOLE PROFESSIONAL PLANNING CATEGORY AT ENTRY FOR REGISTERED NURSE AND GENERIC STUDENTS

	Mean Scores	df	t-value
RN students (N=36)	36.722	79.95	0.48
Generic students (N=50)	36.204		

It is interesting to note that means vary only slightly. This would be expected as both groups are beginning a professional nursing program and should lack professional competency in planning of patient care as they enter a baccalaureate nursing program.

Professional Planning Item Comparison: Entry Registered Nurse and Generic Students

As indicated in Chapter 3, for the purpose of this study, the researcher identified fifty-four (54) planning for patient care behaviors. Thirty (30) of these fifty-four (54) behaviors were designated as professional and twenty-four (24) behaviors were designated technical.

Table 13 shows the significant entry level mean score comparison in each designated professional behavior for the registered nurse students and the sophomore generic nursing students. The table with all professional behavior item comparisons can be found in Appendix I, Professional Planning Item Comparison: Entry Registered Nurse Students vs Generic Students.

TABLE 13

SIGNIFICANT PROFESSIONAL PLANNING ITEM COMPARISON:

ENTRY REGISTERED NURSE VS GENERIC STUDENTS

Professional Behavior	Mean Scores RN (N=36)	Mean Scores Generic (N=50)	df	t-value	p
42. Encourage client to prepare for exams by strengthening study habits	1.083	1.306	72.94	-2.33	0.02
43. Encourage client to discuss current health problem with the Professor to make him/her aware of health problem	1.000	1.224	48.00	-2.68	0.01
48. Assist client in understanding need for therapeutic diet for current health problem	1.666	1.326	62.43	2.07	0.04
52. Assess client's knowledge of relationship of adequate sleep to health	1.055	1.224	74.13	-2.19	0.03

The mean scores on four of the thirty professional behaviors showed statistical significance. It is interesting to note that entry generic students had higher mean scores than did the registered nurse students on three of the four significant scores. The three Professional Behaviors were: "Encourage client to prepare for exams by strengthening study habits" (42); "Encourage client to discuss current health problem with professor to make him/her aware of health problem" (43); "Assess client's knowledge of relationship of adequate sleep to health" (52).

The registered nurse students had a significantly higher mean on one Professional Behavior: "Assist client in understanding need for therapeutic diet for current health problem," (48). It should be noted here that when all professional items are considered together (Table 12, p. 60) there is no significant difference between groups at entry.

Whole Professional Planning Category Comparison: Exit Registered Nurse and Generic Students

Table 14 illustrates whole professional planning category at the exit of the program for registered nurse students and senior generic students.

TABLE 14

WHOLE PROFESSIONAL PLANNING CATEGORY COMPARISON AT EXIT FOR REGISTERED NURSE AND GENERIC STUDENTS

	Mean Scores	df	t-value	p
RN students (N=36)	64.333	54.92	4.53	0.000
Generic students (N=37)	37.108			

The group t-test did not support Hypothesis 2: That gains of professional competencies in the area of planning of patient care made by registered nurse students are not significantly different from gains made by generic baccalaureate nursing students.

The mean scores for the registered nurse students were significantly higher than the mean scores of the generic students. This finding is

important. Both groups received two years of nursing education at the baccalaureate level - yet the outcome is significantly different. Registered nurses in the completion program scored significantly higher in professional behaviors in the planning of patient care. The design of this study does not make it possible to tease out the exact differences between these program outcomes. However, some speculations can be made.

The significant difference in mean scores could be explained by the fact that Registered Nurse students are technically competent upon entering a baccalaureate program, (Table 19, p. 78) and thus can focus on the development of professional behaviors. Another possible source of difference is the content and/or quality of the two programs. For example, the completion program may focus more on professional behaviors. The generic baccalaureate nursing student must develop both technical and professional behaviors while pursuing a baccalaureate program. Yet, in order to become licensed to practice nursing, graduates must be successful on the State Board Examination which has a technical focus. Thus, these students may

experience a curriculum which has a stronger technical orientation than that of baccalaureate completion programs.

Professional Item Comparison: Exit Registered Nurse and Generic Students

Table 15 illustrates a comparison of the significant exit mean scores on individual professional items for registered nurse and generic nursing students. The table with all professional behavior item comparisons can be found in Appendix J, Professional Planning Item Comparison: Exit for Registered Nurse Students vs Generic Students.

TABLE 15

SIGNIFICANT PROFESSIONAL PLANNING ITEM COMPARISON: EXIT REGISTERED NURSE VS GENERIC STUDENTS

Professional Behavior	Mean Scores RN (N=36)	Mean Scores Generic (N=37)	df	t-value	p
31. Note client's response to hospitalization	1.666	1.1081	47.76	3.44	0.00

TABLE 15 - Continued

Professional Behavior	Mean Scores RN (N=36)	Generic (N=37)	df	t-value	p
32. Note what client currently does to decrease anxiety	1.472	1.081	49.42	2.75	0.00
34. Assist client in becoming aware of relationship of stress and illness	1.638	1.108	50.73	3.59	0.00
35. Assist client in learning signs and symptoms of increased anxiety	1.305	1.000	35.00	3.18	0.00
42. Encourage client to prepare for exams by strengthening study habits	1.500	1.054	45.96	3.06	0.00
44. Assess client's knowledge of relationship of diet and health	1.833	1.243	65.76	3.64	0.00
45. Review current nutritional patterns	2.166	1.297	65.0	4.77	0.00
47. Assess availability of improved nutrition in college setting	1.388	1.108	60.22	2.36	0.02

TABLE 15 - Continued

Professional Behavior	Mean Scores RN (N=36)	Generic (N=37)	df	t-value	p
48. Assist client in understanding need for therapeutic diet for current health problem	1.944	1.351	64.03	3.12	0.00
50. Teach or reinforce need for well-balanced diet in order to maintain health and prevent disease	2.138	1.675	70.55	2.18	0.03
52. Assess client's knowledge of relationship of adequate sleep to health	1.333	1.054	42.75	2.359	0.02
57. Discuss perceptions of health habits such as exercise	1.305	1.027	38.65	2.29	0.02
58. Discuss possible corrections for poor health habits	1.722	1.216	54.99	2.818	0.00

Differences between the Registered Nurse students' exit mean item scores and mean item scores for the generic students were significantly different for thirteen of the thirty Professional Behaviors. Those behaviors are listed in Table 15: "Note client's response to hospitalization" (31); "Note client's response to hospitalization" (33); "Note what client currently does to decrease anxiety" (32); "Assist client in learning signs and symptoms of increased anxiety" (35); "Encourage client to prepare for exams by strengthening study habits" (42); "Assess client's knowledge of relationship of diet and health" (44); "Review current nutritional patterns" (45); "Assess availability of improved nutrition in college setting" (47); Assist client in understanding need for therapeutic diet for current health problem" (48); "Teach or reinforce need for well-balanced diet in order to maintain health and prevent disease" (50); "Assess client's knowledge of relationship of adequate sleep to health" (52); "Discuss perceptions of health habits such as exercise" (57); "Discuss possible connection for poor health habits" (58).

These thirteen Professional Behaviors represent two categories: patient assessment and patient teaching as they relate to planning of patient care. Behaviors 31, 32, 44, 45, 47, 52 are directed toward assessing level of knowledge and current function of the biopsychosocial nature of humans. Professional Behaviors 34, 35, 42, 48, 50, 57, 58 focus on patient teaching and on increasing the patient's awareness. Thus, it appears that the registered nurse students are able to develop and implement Professional Behaviors in the above-mentioned areas to a greater degree than were the generic students at exit in their senior year.

It is difficult to explain completely the reason for the registered nurse students' higher performance on exit of thirteen or almost half of the total number of professional behaviors. Factors that could have contributed to a higher performance on the professional items were their level of maturity though age made no difference within the registered nurse group, as the mean age of this group was higher (Table 1, page 24); and although the core curriculum content was common to both programs, the registered nurse students had previous

experience in nursing practice (Table 3, page 25). Although they did not get feedback on their results, other than the score, the fact that the registered nurse students took the exam on entry to the registered nurse completion program could be another factor. However, the faculty of the generic program stated that simulated video situations had been used in their program as a learning methodology. Therefore, the use of this methodology should not have contributed significantly to the lower performance of the generic students.

Another possible reason mentioned previously is that generic nursing programs must focus on technical behaviors as well as professional behaviors since their entry students have not previously had this experience. Also, this result could be attributed to the fact that the entry and exit generic groups, although demographically comparable, were not the same or matched on other variables not explored in the study such as motivation or intelligence. The limited increase in the mean score from entry to exit for the generic group could also be attributed to the fact that the

sample of 37 was not representative of the graduating class. Although the examination was given during class time, and the students were strongly encouraged by the faculty to participate, approximately one-third of the class remained and participated in the study.

Discriminant Analysis Exit Level Professional Scores

A stepwise discriminant analysis was performed to determine which professional behaviors best discriminated between the exit level scores/student groups in the two programs.

Table 16 shows the eight professional planning behaviors that were the significant discriminators between the registered nurse student and the generic baccalaureate students.

TABLE 16

DISCRIMINANT ANALYSIS, MEANS OF EXIT SCORES FOR PROFESSIONAL PLANNING BEHAVIORS BY PROGRAMS LISTED IN DESCENDING ORDER OF CORRELATION

Professional Behavior	Mean Scores	
	RN (N=36)	Generic (N=37)
45. Review current nutritional patterns	2.166	1.297
31. Note client's response to hospitalization	1.666	1.108
35. Assist client in learning signs and symptoms of increased anxiety	1.305	1.000
37. Encourage coping mechanisms such as talking	2.194	2.431
42. Encourage client to prepare for exams by strenghtening study habits	1.500	1.054
34. Assist client in becoming aware of relationship of stress and illness	1.638	1.108

TABLE 16 - Continued

Professional Behavior	Mean Scores	
	RN (N=36)	Generic (N=37)
32. Note what client currently does to decrease anxiety	1.472	1.081
44. Assess client's knowledge of relationship of diet and health	1.833	1.243

Eight of the thirty professional behaviors were identified as significant discriminators between the registered nurse students and the generic baccalaureate students. On seven of the eight professional behaviors the registered nurse students had significantly higher mean scores on the exit test, (Table 15, page 66). The Professional Behavior, "Encourage coping mechanisms such as talking" (37); was a significant discriminator between the two groups, however, it correlated inversely showing a higher mean score for the generic students. Given scores on the items in

Table 16, one is able to classify what group students were in 82.1% of the time. That is, based on the mean exit scores of the eight professional items, one is able to predict with 82.1% accuracy those individuals who are registered nurse students in a baccalaureate completion program and those who are senior generic baccalaureate nursing students.

Summary

The data presented in this section does not support accepting Hypothesis Two. The gains of professional competencies in the area of planning of patient care made by registered nurse students were significantly different than gains made by generic baccalaureate nursing students. Upon entry to the baccalaureate nursing program there was no significant difference in the scores of the two groups for the whole professional planning category. At the time of exit from the baccalaureate completion program the registered nurse students had a significantly higher mean score on the whole professional planning category. At entry to the baccalaureate program the generic students had significantly higher mean scores than did the

registered nurse students on three professional items. At exit from the baccalaureate program the registered nurse students had significantly higher mean scores on thirteen of the thirty professional items.

A discrimant analysis run on the means of the exit scores of the professional items identified eight professional items that were significant discriminators.

Technical Planning Behaviors

This dissertation originally focused on the professional items of the examination. However, after the analysis of the data, it was thought helpful to also investigate group differences and similarities on technical planning behaviors. Since the generic group showed no significant gain in overall professional behaviors, the question arose as to whether proficiency in the technical area would show gain. Furthermore, how did the technical behavior gains of the generic students compare with those by existing registered nurses in a baccalaureate completion program.

Whole Technical Planning Category Comparison: Entry and Exit Registered Nurse and Generic Students

Tables 17 and 18 show the whole technical planning category comparison from entry to exit for registered nurse and generic students. Tables 19 and 20 show the difference in scores of the registered nurse and generic students at entry and exit for individual technical behaviors.

TABLE 17

WHOLE TECHNICAL PLANNING CATEGORY COMPARISON: ENTRY VS EXIT FOR REGISTERED NURSE STUDENTS

Mean Score		df	t-value	p
Entry (N=36)	Exit (N=36)			
35.25	39.30	19.98	-4.19	0.000

There was a significant difference in the mean score upon exit for the registered nurse students. This group showed significant gains in both technical and professional behaviors (Table 4, page 40)

from entry to exit. Although the focus in the completion program is on the development of professional behaviors, registered nurse students are introduced to physical examination skills. Perhaps, these new technical skills in addition to practicing nursing in technically oriented work situation resulted in gains in technical behaviors for this group.

TABLE 18

WHOLE TECHNICAL PLANNING CATEGORY COMPARISON: ENTRY VS EXIT FOR GENERIC STUDENTS

Mean Score		df	t-value	p
Entry (N=50)	Exit (N=37)			
26.75	33.16	49.51	-6.16	0.000

This generic program group showed significant gains in technical behaviors from entry to exit. Although both the generic and registered nurse groups showed significant gains in technical

planning skills, the registered nurse students had significantly higher mean scores than did the generic students both at entry (Table 19) and at exit (Table 20). This could have resulted from the registered nurse students work experience. As is indicated in Table 3, page 25, the mean number of months employed for this group was forty-eight.

Table 19 shows the whole technical planning category comparison for entry level registered nurse in a completion program and sophomore generic nursing students.

TABLE 19

WHOLE TECHNICAL PLANNING CATEGORY COMPARISON FOR REGISTERED NURSE AND GENERIC STUDENTS

	Mean Scores	df	t-value	p
RN students (N=36)	35.25	43.67	4.40	0.00
Generic students (N=50)	26.75			

There is a significant difference in the mean scores of the two groups.

This finding is expected as the registered nurse students have previously graduated from associate degree and diploma programs. These programs are oriented toward the technical aspect of patient care. In addition, these students have practiced as registered nurses. The generic students have not had any theoretical or clinical practice experience in nursing. At the time of data collection, the generic students were experiencing their first nursing course, however, it should be noted that some of these students had previously worked as nurses' aides. The data on Tables 17 and 19 when taken together provide quantitive evidence regarding technical skill development within associate degree and diploma programs.

To help assess the possibility of a greater technical emphasis in the traditional generic program, a comparison was made of the exit scores for registered nurse and generic students on technical planning behaviors. Table 20 shows the results of this analysis.

TABLE 20

WHOLE TECHNICAL PLANNING CATEGORY COMPARISON AT EXIT FOR REGISTERED NURSE AND GENERIC STUDENTS

	Mean Scores	df	t-value	p
RN students (N=36)	39.30	67.11	4.00	0.000
Generic students (N=37)	33.16			

There is a significant difference in the mean scores of the two groups. So, though generic students may have an emphasis in their degree program on technical skills and in fact show a significant gain in technical skills (Table 18, page 78), they do not score to the degree on technical skills at exit as did the registered nurse students. This does make some sense given that the registered nurse students have been practicing technical skills out in the work world. Their greater entry-level competence in this area (suggested by Table 19) seems to continue to persist through school. The generic program apparently does not (and perhaps cannot be expected to) bring students newly exposed

to nursing up to the level of technical skill of those who have passed the licensure exam and have been practicing in the field.

Again, a note of caution must be raised here regarding all of the analysis in Tables 17-20. Because the generic pretest and posttest data were collected from two different samples while the completion program data was collected longitudinally from one group, comparability is called somewhat into question.

Summary

As would be expected the registered nurse students scored significantly higher on the sum of technical behaviors than did the generic students at entry. At the time of exit from the baccalaureate completion program the registered nurse students had a significantly higher mean score on the whole category technical planning behaviors and the generic students showed significant gains from entry to exit. This finding regarding the generic students combined with the findings reported under

Hypothesis Two leads one to question the focus of generic baccalaureate nursing education. That is, perhaps the stated generic nursing content which includes both technical and professional behavior development is not realizable within the time frame allocated to the major.

This chapter has presented an analysis of the responses in the area of planning patient care to the simulated patient care situation. Two hypothesis were tested in this study. One was accepted and the other was not. Chapter V will summarize the results and discuss the conclusions, implications and recommendations.

C H A P T E R V

DISCUSSION AND SUMMARY

Overview

This chapter contains a discussion and summary of the findings of the study. It also presents some implications for nursing education and recommendations for additional study.

Discussion

The purpose of the study was to determine the extent and nature of professional competencies in the area of planning for patient care of registered nurse students from entrance to exit of a baccalaureate nursing completion program. It was designed primarily to show whether there is a change in the individual's ability to plan patient care as a result of participation in a baccalaureate program for registered nurses. The study also compared entry, exit and gain scores of returning registered nurses with those made by generic baccalaureate program nurses. In addition, given the results on

the professional items, group differences and similarities on technical planning behaviors were also investigated.

To accomplish this purpose, fifty-four planning behaviours were identified based on a simulated patient care situation. Each item was given a designation of either professional or technical. Thirty of the above-mentioned items were designated as professional (professional behaviors) and twenty-four items were designated as technical (technical behaviors). The professional planning behavior designation was determined by majority agreement of raters who were considered to be experts in the area of technical and professional nursing. Professional planning competencies were described as those activities carried out by the nurse who by utilizing the nursing process as a framework, identifies and determines a plan of action to solve common and uncommon, immediate and long-term health care problems of a biopsychosocial nature; functions in the educative and psychological supportive role in the area of disease prevention and health maintenance; intiates non-prescribed nursing actions

and functions collaboratively with other professionals in providing health care to individuals, families and groups in a variety of settings.

Registered nurse students who had previously taken the Clinical Practice Examination as an entrance requirement to the nursing major repeated the same examination during the last semester of the nursing program. In addition, the same Clinical Practice Examination was given to a sample of sophomores (Class of 1986), beginning generic nursing students in a generic nursing program within the Massachusetts State College System. The same examination was also given to a demographically comparable group of seniors (Class of 1984) during the last semester of the same generic program.

Two hypotheses were formulated relating to the gain in professional planning competencies in the area of planning of patient care.

First Hypothesis

Hypothesis 1: There are gains in professional competencies in the area of planning of patient care for registered nurse students from entrance to exit in a baccalaureate completion program.

The findings in the study supported Hypothesis One. The registered nurse students did show whole category gains in professional planning behaviors from entry to exit of the baccalaureate completion program. Statistically significant differences were also found in the group mean entry and exit scores for ten of the thirty professional behaviors for the registered nurse students. Six of the ten professional behaviors focused on determining the patient's level of knowledge and patient teaching. The remaining four statistically significant behaviors addressed the psychosocial aspects in planning the care of a patient.

In addition, the researcher examined three characteristics--age, number of months employed as a nurse, and previous basic nursing education, and related these to whole professional mean scores on entry and exit. Previous basic nursing education was significantly related to mean scores on entry. Scores for those students whose previous basic nursing education was an associate degree were significantly higher than the scores of those who graduated from diploma nursing programs. The mean

scores between the two groups upon exit were not significantly different. Consistent with this, a statistically significant gain was found in whole professional category mean score for the diploma graduates from entry to exit in the program. The associate degree graduates' mean scores increased from entry to exit but not significantly. One could conclude that those registered nurse students who previously graduated from diploma basic nursing programs benefited from the baccalaureate nursing program to a greater degree than those registered nurse students with an associate degree in nursing. Another possible conclusion from the results is that associate degree students had more professional planning behaviors at entrance into the completion program because of their educational program.

The higher mean scores on entry for the associate degree graduates could be attributed to the fact that large numbers of nursing educators within associate degree programs have previously graduated from baccalaureate, masters and doctoral programs in nursing. Thus, these faculty members perhaps are teaching content which is more

reflective of professional nursing than that which is considered a traditional part of associate degree nursing, i.e., a focus on technical care to individuals.

The sample size for the associate degree graduates was small, seven (7) students as compared to twenty-nine (29) students in the diploma group. This limits the generalizability of this finding.

Second Hypothesis

Hypothesis 2: The gain of professional competencies in the area of planning of patient care made by registered nurse students are not significantly different than gains made by generic baccalaureate nursing students.

The findings in the study rejected Hypothesis Two. The gains of professional competencies in the area of planning of patient care made by registered nurse students were significantly different than gains made by generic baccalaureate nursing students. Upon entry to the baccalaureate nursing program, there was no significant difference in the scores of the two groups for the whole category of professional behaviors. At the time of exit from

the baccalaureate completion program the registered nurse students had significantly higher mean scores on the whole category professional behaviors. In comparison with the generic students, the registered nurse students had significantly higher mean scores on thirteen of the thirty professional items at the time of exit from the baccalaureate program.

The generic students who took the examination at the completion of their baccalaureate program showed a statistically significant increase in the mean score of only one professional behavior over the mean score achieved by their counterparts, the sophomore generic students who took the exam at the beginning of their nursing program.

This results could be attributed to the fact that the two generic student groups, although compariable were not the same or matched. The exit group did not have the previous experience of taking the exam on entry as did the registered nurse students. The limited increase in mean score from entry to exit for this group could also be attributed to the fact that the sample was not representative of the graduating class. Although

the examintion was given during class time, and the students were strongly encouraged to participate by their faculty, approximately one-third of the class remained and participated in the study.

The fact that there was a significant increase in the mean score on only one professional behavior could also be related to the fact as was discussed earlier, that during the last semester of the generic program for this particular school, there is much emphasis on preparing for State Board Examinations. These exams have a technical nursing focus thus perhaps the subject focus of these generic baccalaureate students could be at least temporarily diverted toward more technical care.

A discriminant analysis run on the means of the exit scores of the professional items identified eight professional items that were significant discriminators between scores of students in the two groups. Listed in descending order of correlation these were: "Review current nutritional patterns" (45); "Note client's response to hospitalization" (31); "Assist client in learning signs and symptoms of increased anxiety" (35); "Encourage coping

mechansims such as talking" (37); "Encourage client to prepare for exams by strengthening study habits" (42); "Assist client in becoming aware of relationship of stress and illness" (34); "Note what client currently does to decrease anxiety" (32); "Assess client's knowledge of relationship of diet and health" (44).

On seven of the eight professional behaviors the registered nurse students had significantly higher mean scores on the exit examination. The professional behavior, "Encourage coping mechanisms such as talking" (37); was a significant discriminator between the two groups, however, it correlated inversely showing a higher mean score for the generic students.

Technical Skills

This dissertation was to focus only on the professional items of the examination. However, given those results, it was thought helpful to also investigate group differences and similarities on technical planning behaviors.

As would be expected the registered nurse students scored significantly higher on whole category technical planning behaviors than did the generic students at entry. At the time of exit from the baccalaureate completion program the registered nurse students had a significantly higher mean score on the whole category technical planning behaviors and the generic students showed significant gains from entry to exit. This finding regarding the generic students combined with the findings reported under Hypothesis Two leads one to question the focus of generic baccalaureate nursing education. Perhaps the stated generic nursing content which includes both technical and professional behavior development is not realizable within the time frame allocated to the major.

Conclusions

Registered nurse students did show significant whole category gains in professional planning behaviors from entry to exit of the baccalaureate completion. This group also showed significant gains on ten of the thirty professional items. Those individuals who had previously graduated from

associate degree programs had significantly higher entry mean scores than did their counterparts who graduated from diploma programs. The diploma graduates showed significant gains from entry to exit on professional items.

The gains of professional competencies in the area of planning of patient care made by registered nurse students were signficantly different than gains made by generic baccalaureate nursing students. At the time of exit from the baccalaureate program the registered nurse students had significantly higher whole category professional behavior scores as well as significantly higher mean scores on thirteen of thirty professional planning items.

The registered nurse students scored significantly higher on whole category technical planning behaviors than did the generic students at entry. The registered nurse and generic students showed significant gains in whole category technical planning behaviors from entry to exit of the baccalaureate program.

Recommendations for Further Study

The results of this study are only suggestive due to the small size of both groups and the use of two non-matched sub groups within the generic student samples. It would be interesting to repeat the study with a sample of registered nurse students and generic students who participate in the same curriculum. The effect of common learning experiences within a more heterogenous group on gains in professional behavior could then be analyzed. A matching group of generic students tcking the pretest and posttest should be studied. There was no attempt in this study to analyze the relationship of variations of curriculum content in the two baccalaureate programs on the changes in scores on professional behaviors. Although the purposes and core nursing content of both programs are similar, some of the learning experiences differ between the two programs. The registered nurse students, although they are students, are licensed to practice nursing and thus have more flexibility in their clinical learning experiences.

Registered nurse students are chronologically older with a mean age of 31.19 as compared with generic students mean age of 19.4 (entry) and 23.4 (exit) (Table 1, page 24). The majority of these registeref nurses are assumed to be adult learners, therefore they are motivated, independent, and have a commitment to their continued education. These students have been employed for a mean of 48.38 months as registered nurses (Table 3, page 25). They are technically skilled and thus are perhaps more ready to develop professional behaviors. Many of the registered nurse students have had initial work experience and are interested in career mobility opportunities that can result from achieving a baccalaureate degree. The effect of these variables on acquiring professional behaviors should be investigated.

Useful information for curriculum design/redesign could be obtained by giving the equivaltn forms of this examination to students at various points throughout their baccalaureate program in order to determine if there were periods within the program where there was significant

change in performance relating to professional behavior. Thus content and learning opportunities which facilitate or impede the development of professional behaviors could be identified.

The identification of teaching learning methodologies and essential curriculum content which lead to an increase in gain of professional behaviors needs to be made. The level of credntialing and previous practice experience of faculty in order to facilitate the acquiring of professional behaviors should be determined.

To expand upon this study, professional behaviors should be identified for the implementation and evaluation components of the nursing process. The implementation phase of the nursing process draws heavily on the intellectual, decision making, interpersonal and communication skills of the nurse. The evaluation components, (i.e., the appraisal of the changes experienced by the patient) follows the implementation of the actions designated in the Nursing Care Plan (Yura and Walsh, 1983). Registered nurse and generic students' professional outcomes in the two areas

should be investigated in order to determine if they differ from those of nurses prepared in associate degree, diploma or masters level entry programs. Investigation in these areas would add to the findings in this study and provide a more complete perspective within the framework of the nursing process of the professional planning capability of graduating nurse and generic students.

Implications for Nursing

Through further identification and measurement of how and when professional behaviors are achieved, the frameworks for baccalaureate nursing education can be better focused. If the results for the generic students in this study are found to be representative of all generic nursing students, major professional nursing education changes should be made. Perhaps it is not possible to assimilate the content of the foundation and distribution requirements in addition to a professional discipline major at the baccalaureate level. Thus, it might be suggested that the future entry level to professional nursing practice might be that of masters preparation.

This researcher feels that the technical focus of the licensing examination is a major inhibitor to the achievement of professional nursing education leading to professional nursing practice. A restructuring of this examination or the development of two examinations could be considered. One examination would evaluate technical competencies and be taken by associate degree graduates and the other examination focus on professional competency and be taken only be baccalaureate and higher degree graduates.

The registered nurse students who had graduated from associate degree programs had significantly higher whole professional planning category scores on entry to the registered nurse baccalaureate completion program than did the diploma graduates. In order to determine the reason for this, the curriculum content of the associate degree nursing programs needs to be examined for appropriateness in meeting the technicaly oriented purpose of these programs. Perhaps there is a definite overlap or inseparableness of some technical and professional behaviors within content. The type of learner who

is attracted to an associate degree program and their potential for developing professional behaviors needs to be investigated. That is, does level of maturity at the time of basic nursing education correlate with acquiring professional behaviors. In addition the performance of the associate degree graduates at entry to the baccalaureate completion program supports the appropriateness of baccalaureate education building on the foundation of an associate degree.

This study provides data that demonstrate the professional behavior potential in the area of planning of patient care of registered nurses who have pursued a baccalaureate in nursing within a registered nurse baccalaureate completion program. Perhaps generic students given a different learning and evaluation situations have the same potential. Curricula could be redesigned to focus on technical skills initially and then emphasize professional behaviors perhaps in the senior year. The student then may be better able to acquire professional competencies once there has been some degree of mastery of technical skills. A change in the

licensing examination, as was mentioned earlier, which would reflect evaluation of professional behaviors as well as technical behaviors would provide an evaluation situation that would encourage the development of professional behaviors.

The statistically significant gains in both professional and technical behaviors of the registered nurse student does support the position held by some nursing educators that registered nurses who received their basic nursing education in diploma and associate degree programs do change their technical orientation as a result of baccalaureate nursing education. This finding also demonstrates the potential comprehensive practice capability of the registered nurse prepared in a baccalaureate completion program. As the complexity in the provision of health care increases, it seems that the registered nurse graduate from a baccalaureate completion program has the potential to provide the nursing care needed.

Conclusions

The researcher found that registered nurse students in a baccalaureate completion program made significant gains in both professional and technical behaviors in the area of planning for patient care. Exit scores were significantly higher for professional and technical behaviors for the registered nurse students when compared with generic baccalaureate students.

The study showed that registered nurses whose education in nursing was technically focused can acquire professional behaviors in the area of planning for patient care through experiencing a baccalaureate completion program, they do so to a greater degree than students in a generic baccalaureate program.

These findings are important to nursing education and practice as they support the assumption that the potential of professional nursing practice can be best realized by a registered nurse with a minimum preparation of a baccalaureate degree. The findings also point to the need to examine licensing as it may mediate the

acquiring of professional nursing behavior. Questions regarding the extent to which traditional baccalaureate programs prepares professional nurses must be pursued further. The profession of nursing needs to consider these areas in order to determine the most appropriate level of education for professional nursing practice.

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APPENDICES

APPENDIX A

Patient Record

WORCESTER STATE COLLEGE

DEPARTMENT OF NURSING

CLINICAL PRACTICE EXAM

NURSING PROCESS COMPONENT

#2

Medical History is fictitious. Any resemblance to persons living or dead is purely coincidental.

P H Y S I C I A N S' S O R D E R S

Medical
Record #: 770-224

NAME: Whelan, Barbara
ADDRESS: 100 Nursing St.
Worcester, MA

BIRTHDATE/AGE: SEX:
21/F

Medication Orders Only	Date	All Other Orders
	3/7	Discharge - have dietary do teaching re: bland diet M. Case, M.D.

P H Y S I C I A N S' S O R D E R S

Medical
Record #: 770-224

NAME: Whelan, Barbara
ADDRESS: 100 Nursing St.
Worcester, MA

BIRTHDATE/AGE: SEX:
21/F

Medication Orders Only	Date	All Other Orders
	3/2	Admit - vs. qo
IV#1 D/NS c 30 mg. KCl 100 cc/hr follow by		NPO, CBR
		CBC, VDRL, Chem and Elect.
#2 IV same		Profile, U/A
Compazine 10 mg. IM stat		Stool for C&S
Compazine 10 mg. IM q prn N/V		I&O, Chest x-ray flat plat of abd.
Tylenol tab--P/o for temp 101.8		
Call H.O. if vomiting continues		
		M. Case, M.D.
	3/3	Clear liquid diet
IV#3 D/1/2 KVO		
Lomatil tabs-- P/O q 4 hrs. prn diarrhea		
		M. Case, M.D.
	3/4	Bld for Na.K, Cl vs. q 6 hrs.
		M. Case, M.D.
D/C IV	3/5	Full liq.
D/C Compazine & Lomital		M. Case, M.D.
	3/6	Bland diet Will discharge tomorrow if condition continues to improve.
		M. Case, M.D.

Chandler Street HOSPITAL

NAME: Whelan, Barbara

ADDRESS: 100 Nursing St.
Worcester, MA

AGE/SEX: 21/F

UNIT NUMBER: 770-224

H I S T O R Y

1. Barbara Whelan is a 21 yr. old college senior admitted to the hospital with a history of vomiting and diarrhea for a three day duration. Upon arising on April 30, she has abdominal "cramps" and felt warm. She started vomiting and having diarrhea by noon of that day. Yesterday she went to the college infirmary and the nurse told her to restrict her fluids and take one teaspoon of coke syrup every 3-4 hrs. She followed the above suggestion but continued to vomit and have diarrhea. She returned to the infirmary this morning and subsequently was admitted at 12 noon.

2. This is Ms. Whelan's first episode of vomiting and diarrhea for more than a one day duration.

3. History of Past Illness:

Pt. described past health as excellent.

Childhood - Measles age 5 Chicken Pox age 8

HISTORY (Cont'd)

Medical illness - Mononucleosis 1976

Surgical procedures - Appendectomy age 16 WHH

Psychiatric illness - none

Allergies - Strawberries

Immunizations up to date Tetanus 1977

Family History - Mother 42 under treatment of high B/P
Father 45 alive and well
Maternal grandmother 69 under treatment of high B/P
grandfather 72 alive adult onset diabetes
Paternal grandmother 70 alive kidney trouble
grandfather died at 71 of heart attack
Sister 19 alive and well
Brother 17 asthma

Social History: Born in Worcester attends Worcester State College as a nursing major. Protestant - lives in dorm, "likes living there" - full insurance. Has a happy home life, "gets along well with sister and brother. Parents sometimes do not understand her. Alcohol on weekends or at parties - a few beers or some wine. Does not smoke. Drinks about 2 cups of coffee per day. Sleeps 5-6 hours per nite during the week, longer on

Chandler Street HOSPITAL

NAME: Whelan, Barbara

ADDRESS: (continued)

AGE/SEX:

H I S T O R Y

UNIT NUMBER:

==========

weekends. Usual day up at 8 am. breakfast - coffee, sometimes a doughnut, 8:30 leaves for class - frequently skips lunch, in afternoon either has class or studies in library, 5:30 supper-meat, potato and veg. - snacks in evening while studying. Bed - after midnite.

Review of Systems:

Skin: rash after eating strawberries

Blood: normal

Eyes: has worn glasses for 1 year

Ears: normal

Nose, Throat, sinuses: normal

Teeth and mouth: no caries, sees dentist every six months

Breast: normal does monthly self breast exam

Respiratory: normal. Last chest x-ray one year ago.

CVS: normal

HISTORY (Cont'd)

GI usual wt. 110. wt. now 104. Prior to present illness appetite good. No diarrhea or constipation.

GU: normal

Genital: normal, no vaginal discharge. Never had VD. sexually active, uses diaphragm. no & change in sex drive.

Musculo-skeletal: normal

Endocrine: normal

CNS: normal

Psych: usually happy but gets anxious at exam times.

Mary Case, M.D.

Chandler Street
HOSPITAL

NAME: Whelan, Barbara
ADDRESS: 100 Nursing St.
Worcester, MA
AGE/SEX: 12/F
UNIT NUMBER: 770-224

PHYSICAL EXAMINATION

==========

Hospital Regulation: All Positive and Negative Findings Shall be Recorded.

Date: 3/2 Hour: 1:30 pm. Weight: 104

Temp: 103 Pulse: 92 Resp: 20 B.P.: 120/72

21 yr. old white female resting in bed. Pt. is cooperative, pale and states that she feels weak.

Skin: color pale, warm to touch. Pt. is diaphoretic.

Head: thick hair, scalp and skull normal

Eyes: 20/20 with glasses on PERRLA, EOM intact, Dics well delineated, no A/V nicking

Ears: Rinne & Weber normal, acuity good to whispered voice. landmarks well delineated

Nose: septum in midline; no sinus tenderness, mucosa pink

Mouth tongue and lips dry, teeth in good repair, tonsils present, pharynx negative.

Neck: tachea midline, thyroid not palpable

Lymph: no enlarged or tender nodes

Lungs/Thorax: Thorax symmetrical, good excursion, fremitus equal bilaterally, lungs resonant, breath sounds normal without rales or wheezes.

PHYSICAL EXAMINATION (Cont'd)

Heart: PMI left fifth interspace 5 cm. left of sternum. S1,S2 normal, no extra sounds or murmurs.

Breasts: No masses, nipples erect.

Abdomen: Symmetrical, bowel sounds hyperactive,
Liver span 5 cm in the right midclavicular line.
Guarding with palpation, no masses felt.
Well healed scar in rt. lower quadrant.

Genitalia: deferred

Rectan: negative

Peripheral vascular:

	Radial	Femoral	Popliteal	Dor ped.	post tibia
RT.	4t	4t	4t	4t	4t
LT.	4t	4t	4t	4t	4t

Musculoskelatal: No joint deformities, ROM normal

Neurological:
Cranial nerves: See head and neck. Anso
N5 Sensation intact, strength good
N7 Facial movement good
N11 Sternomastoids and trapezii strong.

Reflexes:

Mental Status: Cooperative, oriented.

Mary Case, M.D.

Chandler Street Hospital

NAME: Barbara Whelan

ADDRESS: 100 Nursing St.
Worcester, MA

PROGRESS RECORD

AGE/SEX: 12/F

Date	Prob. No.	POMR FORMAT: Prob. No. & Title S = Subjective O = Objective A = Analysis P = Plan
3/2 12:pm		21 yr. old college senior admitted following 3 day episodes of vomiting and diarrhea. Appears dehydrated. Pt. admitted for fluid and electrolytic replacements. M. Case, M.D.
8:30pm		Vomiting and diarrhea continued. Temp 38.8C. Urinary output 100cc since admission. Pt. was concerned about school work. K+ M. Case, M.D.
3/3 8:30am		Temp continues to - feels better. Will start on clear liquid #3IV KVO output continues to improve. vomiting and diarrhea. M. Case,M.D.
3/4		Pt. continues to improve Ordered repeat NA, G & Cl and have advanced diet as tolerated. M.Case,M.D.
3/5		Pt. states she feels much better. Can study. Will keep over one+ more days as pt. will return to dorm upon discharge. M. Case, M.D.
3/6		N/V D/C Observe for tolerance of Bland Diet Possible D/C tomorrow. M. Case, M.D.

PROGRESS RECORD

Date	Prob. No.	POMR FORMAT: Prob. No. & Title S = Subjective O = Objective A = Analysis P = Plan
3/7		Tol. diet well no C/O N/V/D discharge today. M. Case, M.D.

Chandler Street Hospital

DATE: 3/2

MEDICAL RECORD NO.: 770-224

MEDICATION PROFILE B

(For PRN, STAT, Preoperative & Other Single Dose Orders)

NAME: Whelan, Barbara
ADDRESS: 100 Nursing St. Worcester, MA
BIRTHDATE/AGE: 21/F
SEX:

Auth. And Date Started	In't.	Medication	Frequency	Day One 3/2	Day Two 3/3	Day Three 3/4
3/2		Compazine 10 mg. IM	Stat			
3/2		Compazine 10 mg. IM	q 4hr			
3/2		Tylenol -- tabs P/O	For temp 101.8			
3/3		Lomotil -- tabls P/O	q 4hr diarrhea			

STAT. PREOPERATIVE AND OTHER SINGLE DOSE ORDERS

AUTH. NO.	TO BE GIVEN Date/Time	MEDICATION DOSE & ROUTE	GIVEN Date/Time
	3/2	Compazine 10 mg IM	3/2,2AM/DS

NURSE'S INITIALS AND SIGNATURE

JJ Joan Jones
BS Bob Smith
TW Tom White

3/2 MED. UNIT
NO.: 770-224

GRAPHIC CHART

CHANDLER STREET
HOSPITAL

NAME: Barbara Whelan
ADDRESS: 100 Nursing St.
Worcester, MA
AGE/SEX: 12/F

DATE	3/2						3/3						3/4					
HOUR	4	8	12	4	8	12	4	8	12	4	8	12	4	8	12	4	8	12
oC																		
42																		
41																		
40																		
39			•	•	•													
38						•		•	•									
37										•	•	•	•	•	•	•	•	•
36																		
35																		
34																		
160																		
150																		
740																		
130																		
120																		
110																		
100																		
90			•	•	•													
80						•		•	•									
70										•	•	•	•	•	•	•	•	•
60																		
50																		
50																		
40																		
30																		
20			•	•	•	•		•	•		•	•		•	•	•	•	•
10																		
BP	120/70 &						116/70			112/70			110/68					
WEIGHT	104									105								

NURSING CLINICAL SUMMARY
Chandler Street Hospital

Name: Whelan, Barbara
770-224

	INTAKE				OUTPUT									
Date Time	Oral	Oral Total	Intra-venous	IV Total	Urine	Urine Total	SG S&A	BM Gulac	Other	Activ-ity	Turn & Position	RT Nursing	Treat-ments	OBSERVATIONS
3/7														Pt. discharged to college dorm. Diet teaching done. B. Smith, R.N.

NURSING CLINICAL SUMMARY
Chandler Street Hospital

Name: Whelan, Barbara
770-224

	INTAKE				OUTPUT									
Date Time	Oral	Oral Total	Intra-venous	IV Total	Urine	Urine Total	SG S&A	BM Guiac	Other	Activ-ity	Turn & Position	RT Nursing	Treat-ments	OBSERVATIONS
3/6														Showered, spent most of day studying. Feels
7-3														much better. Tolerating bland diet well. Excited
														about possible discharge tomorrow.
														B. Smith, R.N.
3-11														Visitors in - In good spirits.
														T. White, R.N.
11-7														Slept all noc.
														J. Jones, R.N.

NURSING CLINICAL SUMMARY
Chandler Street Hospital

Name: Whelan, Barbara
770-224

	INTAKE				OUTPUT									
Date Time	Oral	Oral Total	Intra-venous	IV Total	Urine	Urine Total	SG S&A	BM Guiac	Other	Activ-ity	Turn & Position	RT Nursing	Treat-ments	OBSERVATIONS
3/5														IV D/C Pt. much more about. Studying at short
7-3	400	400			200	200								intervals. Appears less anxious re exams
	200	600			200	400								Tol. full big diet well.
														B. Smith, R.N.
3-11	400	1000			150	550								Friends in without complaints, discuss to be
					200	750								discharged.
														T. White, R.N.
11-7	100	1100												Slept most of noc.
														J. Jones, R.N.

NURSING CLINICAL SUMMARY
Chandler Street Hospital

Name: Whelan, Barbara
770-224

	INTAKE				OUTPUT									
Date Time	Oral	Oral Total	Intra-venous	IV Total	Urine	Urine Total	SG S&A	BM Guiac	Other	Activ-ity	Turn & Position	RT Nursing	Treat-ments	OBSERVATIONS
3/4														Pt. still concerned about exams. Pt. encouraged
7-3	350	350			300	300								to rest for another day. Studying at short intervals.
			300	300	300	600								B. Smith, R.N.
3-11	400	850	200	500	100	700								Visitors in - tol Cp big diet well. Seems more
	100	950			200	900								relaxed.
														T. White, R.N.
11-7			200	700	100	100								Slept well most of noc in long naps.
														J. Jones, R.N.

NURSING CLINICAL SUMMARY
Chandler Street Hospital

Name: Whelan, Barbara
770-224

	INTAKE				OUTPUT									
Date Time	Oral	Oral Total	Intra-venous	IV Total	Urine	Urine Total	SG S&A	BM Gulac	Other	Activ-ity	Turn & Position	RT Nursing	Treat-ments	OBSERVATIONS
3/3														Concerned about not being able to study for
8			200	200										exams, still "feels weak" sleeping in naps. Temp 1.
10					200	200								Tol. C1. big diet.
2	200	200			100	300								B. Smith, R.N.
3	150	350												Discussed need to rest c patient. Sleeping in naps
					100	400								no vomiting, diarrhea. X1, IV KVO.
11			200	400	100	500								T. White, R.N.
	300	650												
7-11	100	750	200	600	100	600								Awake with books open, sleeping in.
														J. Jones, R.N.

NURSING CLINICAL SUMMARY
Chandler Street Hospital

Name: Whelan, Barbara
770-224

	INTAKE				OUTPUT									
Date Time	Oral	Oral Total	Intra-venous	IV Total	Urine	Urine Total	SG S&A	BM Gulac	Other	Activ-ity	Turn & Position	RT Nursing	Treat-ments	OBSERVATIONS
3/2														21 yr. old college senior admitted to 222 via
100														wheelchair. In no apparent acute distress. Has
														generalized weakness "doesn't feel good."
3			100	100				60cc	vom					IV #1 started
									100cc					C/o N has vomiting & diarrhea.
														B. Smith, R.N.
8			500	500				20	vom					Pt. states that she feels "awful" P.M. care given
11			300	700					75					T.M. White, R.N.
2								20						Slept most of noc.
														V/D X1
6			800	700					50					J. Jones, R.N.

CHANDLER STREET HOSPITAL

LAB RESULTS

Whalen, Barbara
100 Nursing Street
Worcester, MA

3/2 URINE-ROUTINE

Appearance — Clear
Spec. gravity - 1.025
pH - 7.35
Protein - neg
Glucose - neg
Ketones - neg

3/2 HEMATOLOGY

WBC X10 (3)	= 10	Segs - 30
RBC X10 (6)	= 5.2	Bands - 15
Hgb gm - 17		Lymph - 45
Hct % - 50		EOS - 5
MCV - 90		BASO - 1
MCHC - 32		Atypical Lymph - 2

3/2 STOOL

Organisms isolated - none

3/2 CHEMISTRY PROFILE

Sodium	134 meq/1
Potassium	4 meq/1
Chloride	92 meq/1

3/2 SEROLOGY

VDRL Qual. - neg.

3/4 CHEMISTRY PROFILE

Sodium	138 meq/1
Potassium	4 meq/1
Chloride	92 meq/1

APPENDIX B

Guide To The Nursing Process

I. DATA COLLECTION

1. Health Status
   a. physical
   b. emotional
   c. cultural, social and religious factors
   d. strengths and limitations
   e. client`s perception of self and illness

2. Activities of Daily Living
   a. description of average day
   b. nutrition
   c. physical and social activitigs

II. FORMULATION OF NURSING DIAGNOSIS

Using above data, specify nursing diagnosis (the independent judgment of a nurse through which the nursing problems of the client are identified). These should be based on "data presented on videotape and on the chart.

a. List in order of priority
b. Identify the possible pathophysiological and/or psychological factors contributing to the patient's state of disequilibrium.

III. PLANNING OF NURSING CARE

1. Clearly stated goals for nursing care
   a. acceptable to client
   b. realistic
   c. congruent with other planned therapies.

IV. IMPLEMENTATION

Describe nursing actions that you would provide which would lead to the alleviation and/or resolution of problems identified under nursing diagnosis.

a. indicate utilization of other appropriate health personnel.
b. identify patient teaching where necessary and relate to goals.

V. EVALUATION

a. Evaluate the nursing measures to determine their effectiveness in terms of the desired goals.

b. Identify new information that you need if the plan is ineffective.

APPENDIX C

WORCESTER STATE COLLEGE
DEPARTMENT OF NURSING

RESPONSE BOOKLET

FOR

CLINICAL PRACTICE EXAM

NAME_____

DATE_____

I. DATA COLLECTION

II. FORMULATION OF NURSING DIAGNOSIS

III. PLANNING OF NURSING CARE

IV. IMPLEMENTATION

V. EVALUATION

APPENDIX D

Voice-Over Narrative

Barbara Whelan is a 21-year-old college senior admitted to the hospital with a history of vomiting, diarrhea, and "feeling ill for the past three days." She is concerned about missing classes and examinations.

You are her nurse, responsible for her care one day after admission. After viewing the videotape and examining the record for all the information up until March 3. You are to use the "Guide to the Nursing Process" (which is provided) and make the appropriate responses in the answer book for each of the following components:

I. Data Collection

II. Formulation of Nursing Diagnosis

III. Planning of Nursing Care

IV. Implementation

Once you have completed these four components, close your answer booklet and await further directions. The time period for this section is one hour.

You have been off for two days. You return on March 6. You review her record for March 4 and 5 and view the videotape and then open your booklet and using the "Guide to the Nursing Process," give the appropriate responses under Section V (Evaluation) in the answer book.

You will be allotted 15 minutes for these responses.

Upon completing this section, close your booklet and remain seated until given further directions by the proctor.

APPENDIX E

Professional and Technical Planning

CODE_____

T = technical behavior

P = Professional Behavior

PLANNING FOR NURSING CARE

A. Fluid and extrolyte deficit related to gastroenteritis

Goal: Client will not suffer fluid and electrolyte imbalance or related complications.

Diagnostic:

14. Monitor vital signs_____T_____
15. Monitor electrolyte results____T_____
16. Maintain I&O__T_____
17. Monitor skin turgor___T_____
18. Assess client's ability to tolerate PO intake___T_____

Therapeutic:

19. Replace IV and PO fluids___T_____
20. Offer antiematics as ordered__T_____
21. Offer antipyretics as ordered___T____
22. Avoid juices and fruits____T_____
23. Provide frequent skin care__T_____

Educative:

24. Teach client to increase fluide intake T
25. Teach client to record I&O T
26. Inform client as to potassium rich foods T
27. Teach client exercises that can be done while in bed T
28. Have client record frequency of exercises T

B. Anxiety related to upcoming exams

Goal: Client will be aware that she becomes anxious during exams and will be aware of methods to decrease anxiety.

Diagnostic:

29. Note client's behavior i.e. restlessness and sighing T
30. Note changes in heart rate T
31. Note client's response to hospitalization P
32. Note what client currently does to decrease anxiety P
33. Assess support system, family and friends T

Therapeutic:

34. Assist client in becoming aware of relationship of stress and illness P
35. Assist client in learning signs and symptons of increased anxiety P
36. Spend time with client to convey willingness to listen and be supportive P
37. Encourage coping mechanisms such as talking P
38. Give client clear, concise exaplanations of what is going to occur T
39. Include client in decisions about care P
40. Encourage support of family members and significant others P

Educative:

41. Teach relaxation methods and encourage their use as soon as client notices increased anxiety P
42. Encourage client to prepare for exams by strengthening study habits P
43. Encourage client to discuss current health problem with professor to make him/her aware of health problem P

C. Nutritional Alteration

Goal: Nutritional intake will be adjusted to meet metabolic needs of client

Diagnostic:

44. Assess client's knowledge of relationship of diet and health P____
45. Review current nutritional pattern P___
46. Assess understanding of basic food groups T_____
47. Assess availability of improved nutrition in college setting P_____

Therapeutic:

48. Assist client in understanding need for therapeutic diet for current health problem P_____

Educative:

49. Provide for a nutritionist to visit patient T_____
50. Teach or reinforce need for well balanced diet in order to maintain health and prevent disease P_____
51. Teach client the value of a vitamin supplement P_____

D. Sleep Alteration

Goal: Sleep pattern will be altered to more appropriately meet the needs of client

Diagnostic:

52. Assess client`s knowledge of relationship of adequate sleep to health__P_____

53. Assess living situation to determine if environment is conducive to adequate rest and relaxation__P_____

Therapeutic:

54. Encourage client to seek an atmosphere that would allow her to realize sufficient sleep to meet bodily demands_P____

Educative:

55. Reinforce need for adequate sleep for health maintenance and disease prevention_P_____

56. Teach client methods to adjust daily activity in order to increase sleep and rest time_P_____

57. Discuss perceptions of health habits such as exercise_P____

58. Discuss possible corrections for poor health habits__P_____

E. Family history of cardiovascular disease and diabetes

Goal: Client will be aware of self at risk for these health problems and measures of prevention

Diagnostic:

59. Determine B/P T____

60. Determine blood and urine sugar baseline T_

Therapeutic:

61. Encourage client to have physical exam at least every two years P____

62. Encourage client to use diaphragm and not Pill for birth control method P____

63. Teach client relationship of risk factors to illness P_____

64. Inform client of necessity to have B/P checked every six months T_____

65. Teach client normal and abnormal B/P readings T_____

66. Inform as to availability of health care facilities T_____

67. Encourage client to discuss family history of health problems with her parents and siblings P_____

F. OTHER

_____

APPENDIX F

Demographic Data Collection Form

GENERAL INFORMATION - PARTICIPANT

1. Name_____

2. Sex_____

3. Date of Birth_____

4. Marital Status S __ M __ D__ W __

5. School of Nursing Graduated from

   _____

6. Year of Graduation from basic nursing program

   _____

7. Number of months of employment since graduation.

Type of facility	# of mos. (FT)	# of mos. (PT)
Large teaching hospital	_____	_____
Community (non-teaching) hosp.	_____	_____
Community health agency	_____	_____
Other (specify)	_____	_____

8. Position:

Staff nurse	_____	_____
Head nurse	_____	_____
Supervisor	_____	_____
Other	_____	_____
Specify	_____	_____

9. Previous Education: Diploma _____
A.D. _____

10. Main reason for returning to school to attain a B.S. in Nursing

Circle 1

a. Aware of proposal that B.S. in Nursing is necessary for entry into Professional Practice.

b. Need to receive a B.S. to keep your position.

c. Need to receive a B.S. to acquire a new position.

d. Need to receive a B.S. for your personal growth.

APPENDIX G

PROFESSIONAL PLANNING ITEM COMPARISON:

ENTRY AND EXIT

FOR REGISTERED NURSE STUDENTS

Professional Behaviors	Mgan Scores		df	t-value	p
	Entry (N=36)	Exit (N=36)			
27. Teach client exercises that can be done while in bed	1.027	1.083	35.00	-0.81	
31. Note client`s response to hospitalization	1.222	1.666	35.00	-2.26	0.03
32. Note&what client currently does to decrease anxiety	1.027	1.472	35.00	-3.30	0.00
33. Assess support system, family and friends	1.138	1.260	35.00	-0.81	
34. Assist client in becoming aware of relationship of stress and ill	1.222	1.638	35.00	-2.32	0.02
35. Assist client in learning signs and symptoms of increased anxiety	1.166	1.305	35.00	-1.04	

APPENDIX G - Continued

Professional Behaviors	Mean Scores		df	t-value	p
	Entry (N=36)	Exit (N=36)			
36. Spend time with client to convey willingness to listen and be supportive	1.8611	1.277	35.00	-1.78	
37. Encourage coping mechanisms such as talking	1.833	2.194	35.00	-1.62	
39. Include client in decisions about care	1.277	1.500	35.00	-1.35	
40. Encourage support of family members and significant others	1.0566	1.138	35.00	-0.83	
41. Teach relaxation methods and encourage their use as soon as client notices increased anxiety	1.111	1.583	35.00	-2.92	0.00

APPENDIX G - Continued

Professional Behaviors	Mean Scores		df	t-value	p
	Entry (N=36)	Exit (N=36)			
42. Encourage client to prepare for exams by strengthening study habits	1.083	1.500	35.00	-2.76	0.00
43. Encourage client to discuss current health problem with the Professor to make him/her aware of health problem	1.000	1.305	35.00	-2.74	0.01
44. Assess client's knowledge of relationship of diet and health	1.2778	1.833	35.00	-3.95	0.00
45. Review current nutritional patterns	1.333	2.166	35.00	-5.31	0.00
47. Assess availability of improved nutrition in college setting	1.222	1.388	35.00	-1.43	
48. Assist client in understanding need for therapeutic diet for current health problem	1.666	1.944	35.00	-1.43	

APPENDIX G - Continued

Professional Behaviors	Mean Scores Entry (N=36)	Exit (N=36)	df	t-value	p
50. Teach or reinforce need for well-balanced diet in order to maintain health and prevent disease	1.805	2.138	35.00	-1.61	
51. Teach client the value of vitamin supplement	1.083	1.055	35.00	0.37	
52. Assess client's knowledge of relationship of adequate sleep to health	1.055	1.333	35.00	-2.53	0.01
53. Assess living situation to determine if environment is conducive to adequate rest and relaxation	1.027	1.166	35.00	-1.41	
54. Encourage client to seek an atmosphere that would allow her to realize sufficent sleep to meet bodily demands	1.083	1.111	35.00	-0.27	

APPENDIX G - Continued

Professional Behaviors	Mean Scores Entry (N=36)	Exit (N=36)	df	t-value	p
55. Reinforce need for adequate sleep for health maintenance and disease prevention	1.555	1.694	35.00	-0.74	
56. Teach client methods to adjust daily activity in order to increase sleep and rest time	1.194	1.555	35.00	-2.07	
57. Discuss perceptions of health habits such as exercise	1.055	1.305	35.00	-1.86	
58. Discuss possible corrections for poor health habits	1.250	1.722	35.00	-2.62	0.01
61. Encourage client to have physical exam at least every two years	1.000	1.000	35.00	0.00	
62. Encourage client to use diaphragn and not pill for birth control method	1.000	1.000	35.00	0.00	

APPENDIX G - Continued

Professional Behaviors	Mean Scores		df	t-value	p
	Entry (N=36)	Exit (N=36)			
63. Teach client relationship of risk factors to illness	1.111	1.026	35.00	1.00	
67. Encourage client to discuss family history of health vroblems with her parents and siblings	1.027	1.000	35.00	0.00	

APPENDIX H

PROFESSIONAL PLANNING ITEM COMPARISON:

ENTRY AND EXIT

FOR GENERIC STUDENTS

Professional Behaviors	Mean Scores		df	t-value	p
	Entry (N=50)	Exit N=37)			
27. Teach client exercises that can be done while in bed	1.000	1.000	0.00	0.00	
31. Note client's response to hospitalization	1.081	1.1081	61.49	-0.35	
32. Note what client currently does to decrease anxiety	1.102	1.081	82.41	0.25	
33. Assess support system, family and friends	1.040	1.054	83.66	-0.24	
34. Assist client in becoming aware of relationship of stress and illness	1.265	1.108	83.98	1.58	
35. Assist client in learning signs and symptoms of increased anxiety	1.061	1.000	48.00	1.77	

APPENDIX H - Continued

Professional Behaviors	Mean Scores		df	t-value	p
	Entry (N=50)	Exit N=37)			
36. Spend time with client to convey willingness to listen and be supportive	1.816	2.189	76.47	-1.91	
37. Encourage coping mechanisms such as talking	1.632	2.432	77.26	-4.25	0.00
39. Include client in decisions about care	1.244	1.297	75.65	-1.37	
40. Encourage support of family members and significant others	1.020	1.135	52.31	-1.08	
41. Teach relaxation methods and encourage their use as soon as client notices increased anxiety	1.163	1.432	56.18	-1.89	
42. Encourage client to prepare for exams by strengthening study habits	1.306	1.054	78.31	2.53	0.01

APPENDIX H - Continued

Professional Behaviors	Mean Scores Entry (N=50)	Exit N=37)	df	t-value	p
43. Encourage client to discuss current health problem with the Professor to make him/her aware of health problem	1.224	1.189	78.85	0.28	
44. Assess client's knowledge of relationship of diet and health	1.204	1.243	65.20	-0.33	
45. Review current nutritional patterns	1.204	1.297	60.60	-0.74	
47. Assess availability of improved nutrition in college setting	1.081	1.108	61.49	-0.35	
48. Assist client in understanding need for therapeutic diet for current health problem	1.326	1.351	74.32	-0.17	

APPENDIX H - Continued

Professional Behaviors	Mean Scores		df	t-value	p
	Entry (N=50)	Exit N=37)			
50. Teach or reinforce need for well-balanced diet in order to maintain health and prevent disease	1.571	1.675	76.84	-0.55	
51. Teach client the value of vitamin supplement	1.000	1.000	0.00	0.00	
52. Assess client's knowledge of relationship of adequate sleep to health	1.224	1.054	73.43	2.22	0.03
53. Assess living situation to determine if environment is conducive to adequate rest and relaxation	1.0207	1.027	71.36	-0.20	
54. Encourage client to seek an atmosphere that would allow her to realize sufficent sleep to meet bodily demands	1.142	1.054	82.31	1.41	

APPENDIX H - Continued

Professional Behaviors	Mean Scores		df	t-value	p
	Entry (N=50)	Exit N=37)			
55. Reinforce need for adequate sleep for health maintenance and disease prevention	1.653	1.932	83.24	1.27	
56. Teach client methods to adjust daily activity in order to increase sleep and rest time	1.387	1.540	73.23	-0.84	
57. Discuss perceptions of health habits such as exercise	1.040	1.027	79.06	0.28	
58. Discuss possible corrections for poor health habits	1.428	1.216	83.09	1.48	
61. Encourage client to have physical exam at least every two years	1.000	1.000	0.00	0.00	

APPENDIX H - Continued

Professoonal Behaviors	Mean Scores Entry (N=50)	Exit N=37)	df	t-value	p
62. Encourage client to use diaphragm and not pill for birth control method	1.000	1.000	0.00	0.00	
63. Teach client relationship of risk factors to illness	1.000	1.000	0.00	0.00	
67. Encourage client to discuss family history of health problems with her parents and siblings	1.000	1.000	0.00	0.00	

APPENDIX I

PROFESSIONAL PLANNING ITEM COMPARISON: ENTRY REGISTERED NURSE STUDENTS VS GENERIC STUDENTS

Professional Behavior	Mean Scores		df	t-value	p
	RN (N=36)	Generic (N=50)			
27. Teach client exercises that can be done while in bed	1.027	1.000	35.	1.0	
31. Note client's response to hospitalization	1.222	1.081	48.46	1.43	
32. Note what client currently does to decrease anxiety	1.027	1.102	66.54	-1.12	
33. Assess support system, family and friends	1.138	1.062	52.20	0.97	
34. Assist client in becoming aware of relationship of stress and illness	1.222	1.265	74.84	-0.37	
35. Assist client in learning signs and symptoms of increased anxiety	1.171	1.061	44.86	1.18	
36. Spend time with client to convey willingness to listen and be supportive	1.861	1.816	73.20	0.22	

APPENDIX I - Continued

Professional Behavior	Mean Scores		df	t-value	p
	RN (N=36)	Generic (N=50)			
37. Encourage coping mechanisms such as talking	1.833	1.632	72.98	1.03	
39. Include client in decisions about care	1.277	1.244	76.62	0.24	
40. Encourage support of family members and significant others	1.055	1.041	69.15	0.20	
41. Teach relaxation methods and encourage their use as soon as client notices increased anxiety	1.111	1.163	81.34	-0.55	
42. Encourage client to prepare for exams by strengthening study habits	1.083	1.306	72.94	-2.33	0.02
43. Encourage client to discuss current health problem with the Professor to make him/her aware of health problem	1.000	1.224	48.00	-2.68	0.01

APPENDIX I - Continued

Professional Behavior	Mean Scores		df	t-value	p
	RN (N=36)	Generic (N=50)			
44. Assess client's knowledge of relationship of diet and health	1.277	1.204	75.69	0.74	
45. Review current nutritional patterns	1.333	1.204	68.16	1.17	
47. Assess availability of improved nutrition in college setting	1.222	1.081	56.52	1.74	
48. Assist client in understanding need for therapeutic diet for current health problem	1.666	1.326	62.43	2.07	0.04
50. Teach or reinforce need for well-balanced diet in order to maintain health and prevent disease	1.805	1.571	77.70	1.27	
51. Teach client the value of vitamin supplement	1.085	1.000	34.00	1.79	

APPENDIX I - Continued

Professional Behavior	Mean Scores		df	t-value	p
	RN (N=36)	Generic (N=50)			
52. Assess client's knowledge of relationship of adequate sleep to health	1.055	1.224	74.13	-2.19	0.03
53. Assess living situation to determine of environment is conducive to adequate rest and relaxation	1.027	1.020	68.44	0.21	
54. Encourage client to seek an atmosphere that would allow her to realize sufficent sleep to meet bodily demands	1.083	1.142	73.77	-0.75	
55. Reinforce need for adequate sleep for health maintenance and disease prevention	1.555	1.653	75.71	-0.51	

APPENDIX I - Continued

Professional Behavior	Mean Scores		df	t-value	p
	RN (N=36)	Generic (N=50)			
56. Teach client methods to adjust daily activity in order to increase sleep and rest time	1.194	1.416	81.39	-1.57	
57. Discuss perceptions of health habits such as exercise	1.055	1.040	68.44	0.21	
58. Discuss possible corrections for poor health habits	1.250	1.428	82.85	-1.18	
61. Encourage client to have physical exam at least every two years	1.000	1.000	0.00	0.00	
62. Encourage client to use diaphragm and not pill for birth control method	1.000	1.000	0.00	0.00	
63. Teach client relationship of risk factors to illness	1.111	1.000	35.00	1.43	

APPENDIX I - Continued

Professional Behavior	Mean Scores		df	t-value	p
	RN (N=36)	Generic (N=50)			
67. Encourage client to discuss family history of health problems with her parents and siblings	1.027	1.000	35.00	1.00	

APPENDIX J

PROFESSIONAL PLANNING ITEM COMPARISON: EXIT

FOR REGISTERED NURSE STUDENTS VS GENERIC STUDENTS

Professional Behavior	Mean Scores		df	t-value	
	RN (N=36)	Generic (N=37)			
27. Teach client exercises that can be done while in bed	1.083	1.000	35.00	1.36	
31. Note client`s response to hospitalization	1.666	1.1081	47.76	3.44	0.00
32. Note what client currently does to decrease anxiety	1.472	1.081	49.42	2.75	0.00
33. Assess support system, family and friends	1.250	1.054	43.39	1.71	
34. Assist client in becoming aware of relationship of stress and illness	1.638	1.108	50.73	3.59	0.00
35. Assist client in learning signs and symptoms of increased anxiety	1.305	1.000	35.00	3.18	0.00

APPENDIX J - Continued

Professional Behavior	Mean Scores RN (N=36)	Generic (N=37)	df	t-value	p
36. Spend time with client to convey willingness to listen and be supportive	2.277	2.189	70.89	0.43	
37. Encourage coping mechanisms such as talking	2.194	2.432	70.81	-1.16	
39. Include client in decisions about care	1.500	1.297	68.66	1.20	
40. Encourage support of family members and significant others	1.142	1.166	68.34	-0.19	
41. Teach relaxation methods and encourage their use as soon as client notices increased anxiety	1.583	1.432	69.23	0.78	
42. Encourage client to prepare for exams by strengthening study habits	1.500	1.054	45.96	3.06	0.00

APPENDIX J - Continued

Professional Behavior	Mean Scores		df	t-value	p
	RN (N=36)	Generic (N=37)			
43. Encourage client to discuss current health problem with the Professor to make him/her aware of health problem	1.305	1.189	68.62	0.08	
44. Assess client's knowledge of relationship of diet and health	1.833	1.243	65.76	3.64	0.00
45. Review current nutritional patterns	2.166	1.297	65.0	4.77	0.00
47. Assess availa-bility of improved nutrition in college seuting	1.388	1.108	60.22	2.36	0.02
48. Assist client in understanding need for thera-peutic diet for current health problem	1.944	1.351	64.03	3.12	0.00
50. Teach or reinforce need for well-balanced diet in order to maintain health and prevent disease	2.138	1.675	70.55	2.18	0.03

APPENDIX J - Continued

Professional Behavior	Mean Scores		df	t-value	p
	RN (N=36)	Generic (N=37)			
51. Teach client the value of vitamin supplement	1.055	1.000	35.00	1.0	
52. Assess client's knowledge of relationship of adequate sleep to health	1.333	1.054	42.75	2.359	0.02
53. Assess living situation to determine of environment is conducive to adequate rest and relaxation	1.166	1.027	40.82	1.44	
54. Encourage client to seek an atmosphere that would allow her to realize sufficent sleep to meet bodily demands	1.111	1.054	50.77	0.66	
55. Reinforce need for adequate sleep for health maintenance and disease prevention	1.694	1.432	66.60	1.35	

APPENDIX J - Continued

Professional Behavior	Mean Scores		df	t-value	p
	RN (N=36)	Generic (N=37)			
56. Teach client methods to adjust daily activity in order to increase sleep and rest time	1.555	1.540	70.91	0.07	
57. Discuss perceptions of health habits such as exercise	1.305	1.027	38.65	2.29	0.02
58. Discuss possible corrections for poor health habits	1.722	1.216	54.99	2.818	0.00
61. Encourage client to have physical exam at least every two years	1.000	1.000	0.00	0.00	
62. Encourage client to use diaphragn and not pill for birth control method	1.000	1.000	0.00	0.00	
63. Teach client relationship of risk factors to illness	1.027	1.000	35.00	1.0	

APPENDIX J - Continued

Professional Behavior	Mean Scores		df	t-value	p
	RN (N=36)	Generic (N=37)			
67. Encourage client to discuss family history of health problems with her parents and siblings	1.000	1.000	0.00	0.00